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When to use and when not to use antibiotics is a timely problem. Also, should one give antibiotics prophylactically? Here are the answers.

PROBLEMS IN THE USE OF ANTIMICROBIAL AGENTS

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ENORMOUS amounts of antimicrobials are used in the practice of American medicine. During the year 1956, over 300 tons of antimicrobials were consumed by, injected into, or spread upon patients in this country. In The New York Hospital almost 20 cents of every dollar spent for pharmaceutical supplies goes to pay for antimicrobials. The cost of antimicrobials runs as high as 65 cents of each dollar spent on pharmaceuticals in other hospitals within New York City.[1]

It is currently estimated that only a small percentage of the antimicrobials dispensed are used in the treatment of actual bacterial infections. Figure 1 is a pictorial estimate of the approximate distribution of patients receiving antimicrobials in present practice.

Approximately 5 to 10 per cent of patients receiving antimicrobials are suffering with specific bacterial infections in which antibiotics may be effective. Another 10 to 20 per cent of patients receive antimicrobial drugs prophylactically. Between 75 and 90 per cent of the antimicrobials administered to patients are given in situations of fever or illness not due to bacterial infection. The fact that most of these patients recover uneventfully perpetuates their use in these circumstances. It might be noted, however, that patients

SUMMARY

Only a small percentage of the antibiotic drugs dispensed are used in the treatment of actual bacterial infections. Delay in the specific diagnosis of infection—a result of our antiquated diagnostic methods—has been a major factor in the excessive use of antimicrobials.

Until rapid diagnostic methods become available, the physician must make educated guesses regarding the specific microorganism responsible for a given clinical syndrome in planning initial therapy. Attention to details in the history, physical examination, and simple laboratory procedures may aid in deciding when to give and when to withhold antibiotics.

Prophylactic antimicrobial drugs have been highly effective in preventing certain *specific* infections. Antibiotic prophylaxis has been disappointing when used to prevent any or all bacterial infections in situations of altered host resistance.

There are certain situations in which *in vitro* antibiotic sensitivity studies are helpful in planning therapy. Nevertheless, most infections can be properly treated without such studies if the infecting microorganism is known.

Presented at the combined meeting of the Connecticut Societies of American Board Internists and American Board Surgeons, Hartford, Conn., May 28, 1957.

From The New York Hospital-Cornell Medical Center, New York, N. Y.

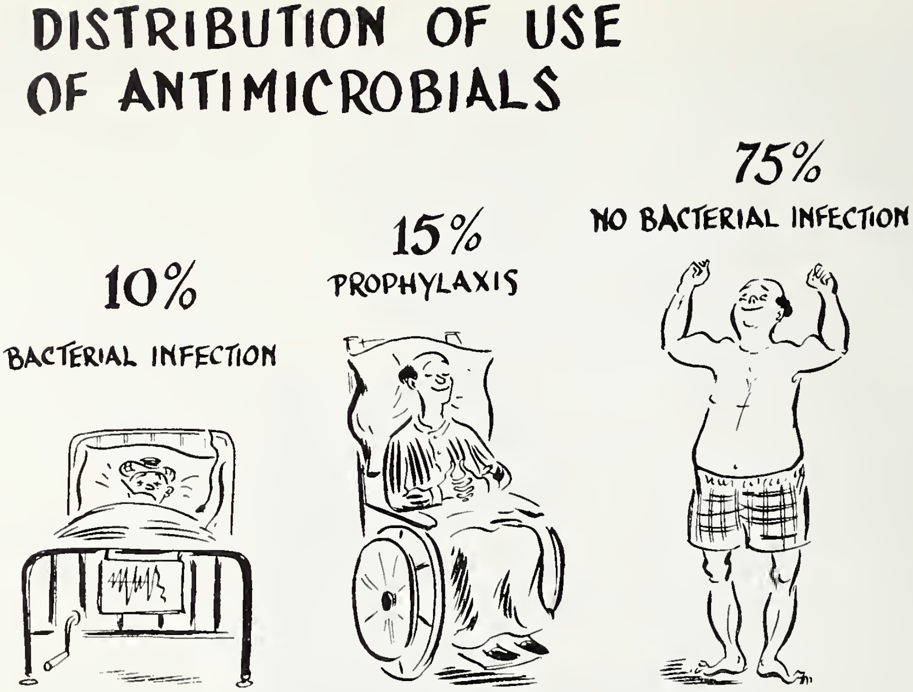

Figure 1

Perhaps 15 to 25 per cent of the situations in which antimicrobials are dispensed represent conditions in which they may be of possible therapeutic value.

without infection who receive antimicrobials are just as susceptible to the toxic and hypersensitive reactions which accompany antimicrobial therapy as those who receive drugs for specific bacterial infections.

THE REASONS FOR THE EXCESSIVE USE OF ANTIMICROBIALS

This problem of over-use of antimicrobials is familiar to all. It has been universally condemned but is universally done—in major teaching hospitals as well as in private practice. The reasons for such vast over-treatment of our patients with antimicrobials have received less attention and bear some examination.

A large number of effective and specific antimicrobial drugs are now available. Therapeutic blood and tissue levels can be attained 15 to 30 minutes after drug administration. In contrast, laboratory methods for making specific bacteriologic diagnosis have not changed remarkably since the days of Pasteur. All bacteriologic methods in current use require the visible growth of micro-organisms for positive identification of bacterial agents. Thus specific diagnosis is delayed 24 to 72 hours. The ensuing dilemma is pictured in Figure 2.

We have on hand powerful drugs which are operative in minutes, yet the knowledge necessary for the sensible use of these agents is days in coming. When faced with a seriously ill patient in whom bacterial infection seems probable, antimicrobial therapy to be truly rational must be promptly initiated. Nevertheless, the information required to make precise and effective use of antibiotic drugs is not available at this critical time.

I believe that this fact has not been sufficiently stressed. Much of the criticism leveled at the inappropriate use of antimicrobials is after the fact. We can all be exceedingly wise about the antimicrobial of choice or, indeed, the propriety of antimicrobial therapy at all, two to four days after the problem has been faced at the bedside. Until our antiquated diagnostic methods are replaced with simple procedures producing specific answers within a few hours, this problem will continue to exist.

At the inception of the antimicrobial era, when only one, or very few, drugs were available for the management of infection, the problem of specific

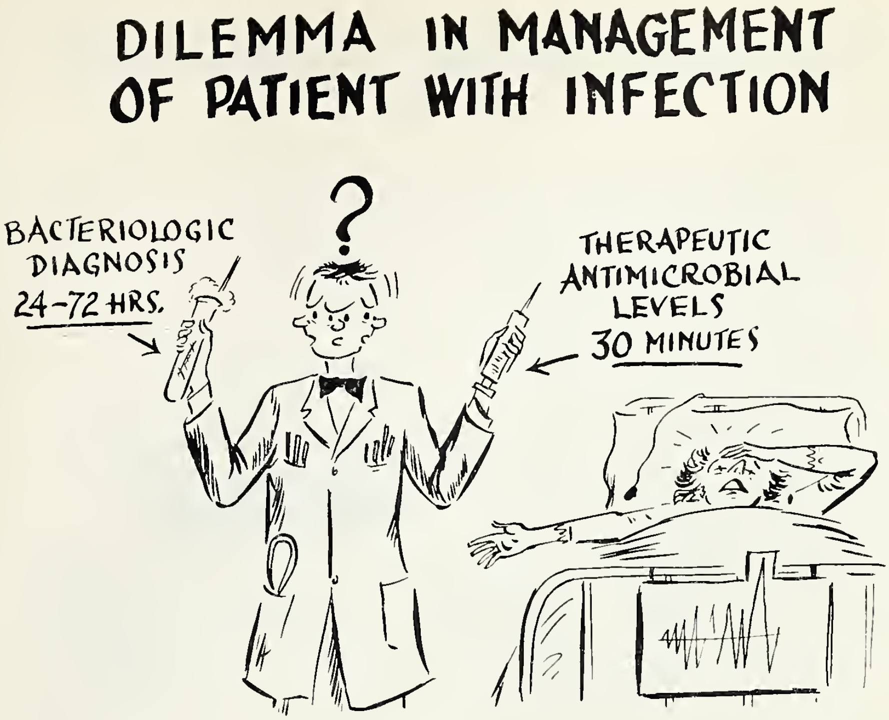
DILEMMA IN MANAGEMENT OF PATIENT WITH INFECTION
?
BACTERIOLOGIC DIAGNOSIS 24-72 HRS.
THERAPEUTIC ANTIMICROBIAL LEVELS 30 MINUTES

FIGURE 2

Specific diagnosis of infection commonly requires 24 or more hours. Antimicrobial therapy, to be effective, must often be initiated before the diagnosis is available.

bacteriologic diagnosis was of lesser import. The vast array of antibacterial agents now available make the choice of antimicrobial agent, or combination of agents, virtually impossible in many instances. The resulting difficulty is illustrated in Figure 3.

Many physicians have been increasingly concerned by the gradual abandonment of the very diagnostic procedures which are now in greatest need. Even the simple gram stained smear of the sputum or urine which can give immense help in the antimicrobial therapy is frequently ignored. The use of pneunococcol or Friedlander bacilus typing sera formerly allowed prompt and precise identification of the etiologic agent in over 90 per cent of patients with acute bacterial pneumonia. Lung puncture was used in the days of serotherapy to obtain the micro-organism producing pneumonia in patients unable to bring up sputum. The meningococcus and the influenza bacillus could also be promptly identified by the Quellung reaction, thus allowing immediate diagnosis in many patients presenting with acute pyogenic meningitis.

Such methods have fallen into disuse, and specific serums for the rapid identification of encapsulated micro-organisms are no longer available in most areas. This trend shows signs of change. Considerable work is currently being directed toward the development of methods for the diagnosis of infection which do not require the visible growth of micro-organisms *in vitro*.

The fact that different microbial parasites can produce distinguishable clinical syndromes suggests that different biochemical processes are operating in different bacterial diseases. It thus seems reasonable to believe that biochemical products may be detectable in sputum, urine, or body fluids which are characteristic of specific etiologic agents. When specific bacteriologic diagnoses can be made in minutes or hours the selection of appropriate antimicrobial agents will become a relatively simple problem.

How can we make proper use of our excellent antibacterial drugs in this interim when rapid laboratory aid is unavailable? I think we are required to become increasingly shrewd bedside diagnosticians. It is currently necessary to consider not only the disease state, but to make some specific bac-

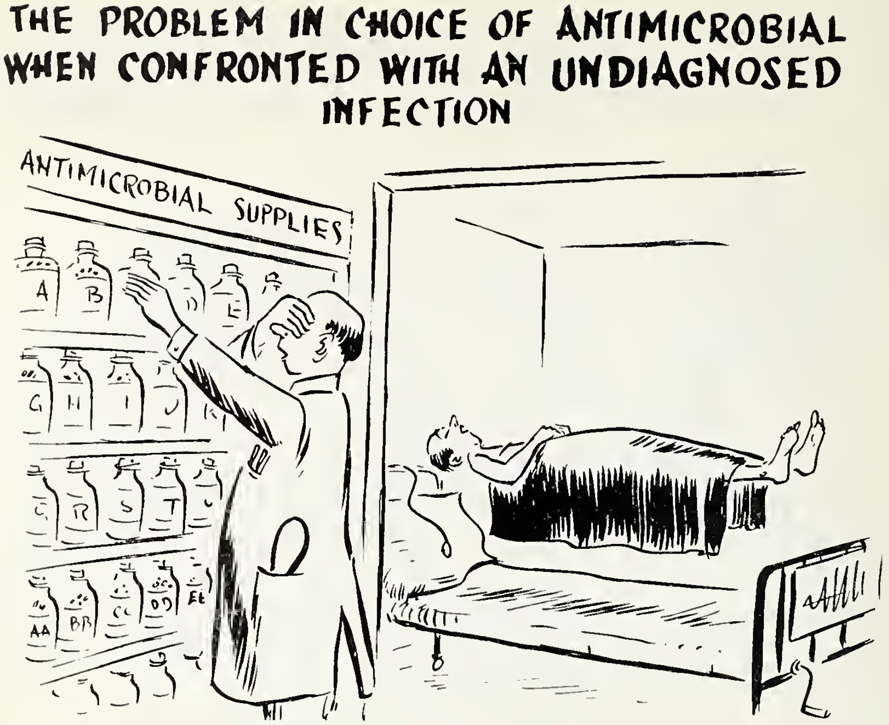
THE PROBLEM IN CHOICE OF ANTIMICROBIAL WHEN CONFRONTED WITH AN UNDIAGNOSED INFECTION
ANTIMICROBIAL SUPPLIES
A
B
G
H
I
J
R
S
T
AA
BB
CC
DD
EE

Figure 3

The choice of the particular antimicrobial to administer when faced with an undiagnosed infection is frequently difficult.

teriologic guesses about the possible micro-organism which may be responsible for a given illness in deciding appropriate immediate therapy.

In situations in which illness is considered sufficiently serious to initiate immediate treatment with antibiotics, careful cultures of the blood or other appropriate body fluids should be obtained before starting antimicrobials. Sputum, urine or exudates should be examined with a simple gram stain. Therapy started on the basis of the best clinical guess should be routinely re-evaluated 24 to 72 hours later when cultural data become available, and promptly modified if necessary. Increasing attention to minutiae in the history, physical examination, and simple laboratory aids allows considerable accuracy in determining what specific bacterial agents should be suspected in different clinical situations. Appropriate antimicrobial drugs can then be selected to cover the best possibilities, or withheld if the advantages of a period of observation outweigh the potential immediate dangers.

In general, patients presenting with a febrile illness of many days duration are benefited by meticulous workup and search for the possible etiologic agent while antimicrobials are withheld. Under careful observation, such patients are rarely compromised by the lack of immediate antibacterial therapy. The detection of subacute bacterial endocarditis, of masked local foci of infection beneath the diaphram, tuberculosis, collagen disease, or hidden malignancy is rendered considerably easier in the absence of complicating therapy.

In contrast, patients presenting with acute febrile illnesses associated with a polymorphonuclear leukocytosis frequently require antibacterial therapy before the specific bacteriologic answers are available. Two examples illustrate these points.

CASE 1

A young woman was admitted to the hospital with a two week history of progressive fatigue, weakness, myalgias and arthralgias, slight cough, and fever ranging to 102°. Because of her fever and an erythematous pharynx, she had received 10 yellow capsules from her local physician a few days before her admission, with temporary remission of symptoms, but fever had recurred.

Past history revealed that the patient lived in a small farming community, and occasionally drank raw milk and water from an open well. She had noted frequent sore throats as a child.

Physical examination revealed fever of 38.5° C., slight pallor, moderate cervical lymphadenopathy, a Grade 3 blowing apical systolic murmur, and a palpable spleen tip. Initial laboratory work showed a low grade anemia, a leukocyte count of 4.8 thousand white blood cells with a slight increase in lymphocytes, some of which looked abnormal.

Upon admission a number of diagnostic possibilities deserved consideration. Brucellosis, typhoid fever, infectious mononucleosis, or subacute bacterial endocarditis could all produce such an illness. None of these possibilities posed a serious threat to life during her initial 48 to 72 hours of observation. Consequently, all therapy was withheld. As noted in Figure 4, four consecutive blood cultures obtained on her third and fourth hospital days revealed a *Streptococcus viridans*.

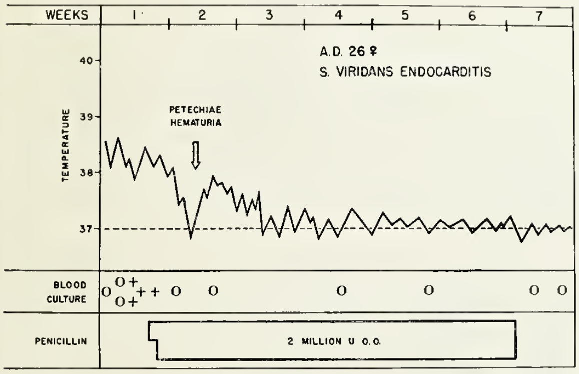

FIGURE 4

Antimicrobials were *withheld* pending specific diagnosis in this patient. Blood cultures taken on the third and fourth hospital days revealed a *Streptococcus viridans*, thus establishing the diagnosis of subacute bacterial endocarditis.

Therapy for subacute bacterial endocarditis was started on the fifth hospital day with 500,000 units of aqueous penicillin administered every three hours. Therapy was continued for six weeks with uneventful recovery. A shower of petechiae to the mucous membranes during the first week of therapy, and an episode of transient hematuria at this time made the diagnosis of endocarditis quite certain.

In this instance, the administration of antimicrobials before the third hospital day might have masked the presence of endocarditis and allowed serious valvular damage to take place before the actual nature of her illness was detected.

CASE 2

A 24 year old boy was admitted to the hospital four hours after the onset of a shaking chill and left pleuritic chest pain. One week before admission the patient had developed a flu-like syndrome with cough, coryza, diffuse muscular aches and pains, and low grade fever. On the day of admission he felt well enough to attend the theatre. During the performance he began to feel extremely ill, had a shaking chill rapidly followed by progressive left sided pleural pain, and a cough productive of small amounts of blood tinged sputum. Upon admission he was acutely ill with a temperature of 40° C., labored respirations, slight cyanosis, and suppression of breath sounds at the left base.

Initial sputum smear showed many polymorphonuclear leukocytes, a few gram positive cocci. The white blood cell count was 4.8 thousand with a shift to the left.

It was clear that this young man had an acute bacterial pneumonia. In this case, four specific etiologic agents required consideration: the pneumococcus, Friedlander bacillus, the staphylococcus, and the beta hemolytic streptococcus. All of these possibilities represented a serious immediate threat to this patient and could not be differentiated with certainty upon initial examination. To cover all of these possibilities, penicillin in large doses plus streptomycin would represent appropriate therapy. In this instance the patient was started on aureomycin after cultures were obtained. Therapy was changed to large doses of penicillin and streptomycin on his second hospital day on the basis of the reasoning already outlined. Cultures subsequently revealed the growth of large numbers of hemolytic *Staphylococcus aureus*. This microorganism was sensitive to penicillin. This patient's illness is illustrated in Figure 5.

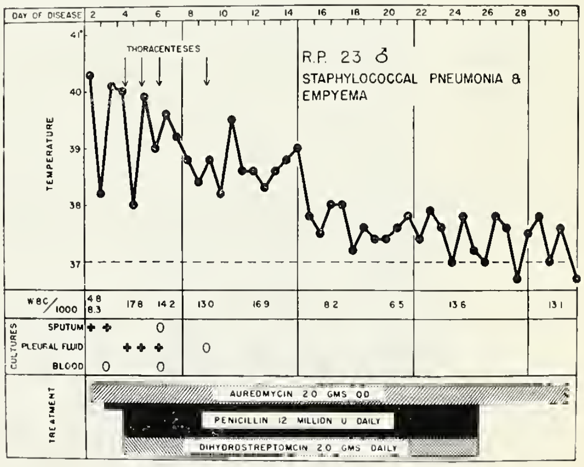

FIGURE 5

This 24 year old male presented with the characteristic clinical picture of acute bacterial pneumonia. In this instance therapy was started *immediately* because of reasons cited in the text.

Despite a stormy course with the rapid development of staphylococcal empyema, this young man eventually made a complete recovery.

In this instance, withholding of antimicrobial therapy until cultural data were available might have seriously endangered life.

THE PROPHYLACTIC USE OF ANTIMICROBIALS

Patients currently receiving antimicrobial drugs to prevent bacterial infections fall into two broad groups. These two groups require separate consideration.

GROUP 1. PROPHYLAXIS AGAINST SPECIFIC INFECTIONS

Certain patients are at greater than normal risk from infection due to a particular micro-organism. Here prophylaxis has a narrow focus.

In this situation there is considerable evidence to indicate that antimicrobial prophylaxis is highly effective. Figure 6 has been prepared from observations which have been reported in the literature on large, well studied groups of individuals who have received antimicrobial drugs to prevent infections by specific bacteria.

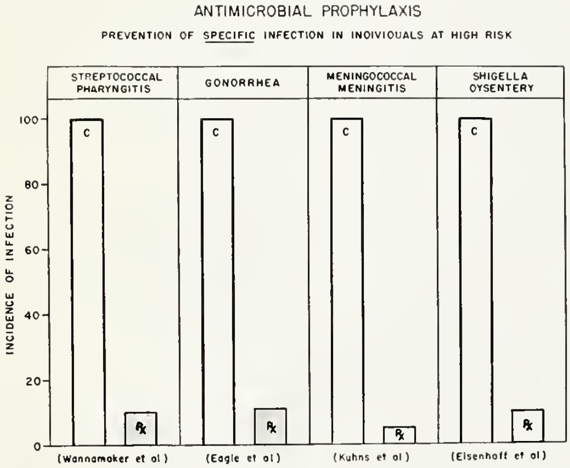

FIGURE 6

Antimicrobial prophylaxis directed toward preventing single specific infections has proven highly effective. Authors refer to those cited in bibliography.

The studies of Wannamaker and his associates have indicated that oral or parenteral penicillin prophylaxis can reduce the incidence of streptococcal pharyngitis by 90 per cent.[2] The incidence of subsequent rheumatic fever has been similarly reduced by such prophylaxis. A single $250,000\mu$ penicillin tablet given to naval personnel following possible exposure to gonorrhea was shown by Eagle to reduce the incidence of gonorrhea by at least 90 per cent.[3] The administration of 2.0 to 3.0 grams of sulfadiazine each day for two to three days almost completely eradicated the meningococcal carrier state in studies by Kuhns.[4] The incidence of meningococcal meningitis was reduced to less than five per cent of that observed within an untreated control group in these studies. Eisenhoff and Goldstein have shown that sensitive shigella can be eliminated from the stools, and that bacillary dysentery can be prevented by the oral administration of sulfonamides to large groups in epidemic situations.[5]

Although there are hazards inherent in the prophylactic administration of antimicrobials to large groups, the obvious effectiveness of prophylaxis in these specific situations far outweighs the possible difficulties. There is little argument about the wisdom of administering antibiotics under these circumstances.

GROUP 2. PROTECTION OF SUSCEPTIBLE HOSTS FROM ANY OR ALL BACTERIAL INFECTIONS

In a second and larger group of patients, antimicrobials are given prophylactically to individuals in situations which render them more susceptible to *all* types of infection. Here, rather than attempting to prevent invasion by a single bacterium, antimicrobial prophylaxis is given in the hope of preventing infections caused by any of a wide variety of micro-organisms. Here results have been considerably less impressive.

Patients in this group include individuals with the childhood exanthemata, patients in shock, coma, or severe congestive heart failure, all situations long known to predispose to secondary bacterial infections. It also includes an increasing number of individuals whose lives have been altered by modern medical therapies. Patients with disseminated lupus erythematosus or pemphigus receiving steroids, individuals with diabetes and Addison's disease receiving replacement therapy, now live through many crises formerly fatal. Patients with leukemia, lymphomas, or other malignancies now survive for longer periods of time. Drugs which produce severe bone marrow depression and granulocytopenia, or heroic surgical measures used in their management render these patients highly vulnerable to bacterial disease.

Despite our current ability to correct many of the difficulties which beset these individuals, they are not restored to normal states of health. They are abnormal altered hosts who present unique new problems in their susceptibility to infection.

Some studies on the efficacy of antibiotic prophylaxis in such patients have been reported. It is of some interest to see what we can expect to accomplish in these unusually susceptible hosts.

Figure 7 graphs certain studies on the use of prophylactic antimicrobials during measles, whooping cough, or bulbar poliomyelitis.

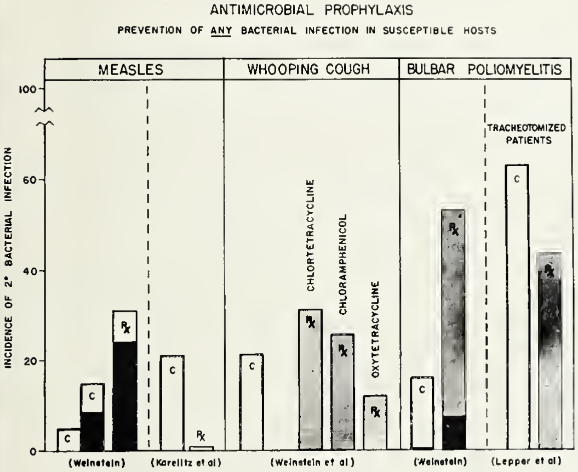

FIGURE 7

The exanthemata of childhood and bulbar poliomyelitis represent situations known to predispose to bacterial infection. Antimicrobial prophylaxis in these susceptible hosts has not materially reduced the incidence of secondary bacterial infections (see text).

Weinstein has reported the incidence of secondary bacterial complications during the course of measles.[6] Three hundred fifty patients entered the hospital without pre-admission antimicrobial therapy and received none while in the hospital. Less than five per cent of these patients subsequently developed infection (Bar 1). Of another 428 cases of measles studied consecutively, 298 received no antimicrobial therapy. In this group, 15 per cent developed secondary bacterial infection (Bar 2). In contrast, over 30 per cent of 130 patients receiving antimicrobials developed superimposed bacterial infections (Bar 3). Of considerable interest was the type of bacterial disease noted in these latter two groups. Pneumonia, the most feared bacterial complication, represented in black in bars 2 and 3, occurred in 8.5 per cent of the control group who received no antibiotics. In contrast, 24 per cent of the treatment group developed pneumonia. Thus the most serious bacterial complication of measles occurred more frequently in patients receiving antimicrobials.

Not all investigators have reported similar experiences. As noted in Figure 7, Karelitz and his associates[7] found that bacterial complications during measles were sharply reduced when penicillin was used prophylactically. The reasons for these differences are not clear.

Discouraging results have also been reported in studies of antimicrobial prophylaxis in whooping cough and bulbar poliomyelitis.[6, 8, 9] Again it appears that secondary bacterial infections are not prevented by antimicrobials. Furthermore, the infections occurring in patients receiving prophylaxis have frequently been due to antimicrobial-resistant micro-organisms which are particularly difficult to manage with drugs currently available.

Figure 8 summarizes the incidence of secondary bacterial infections in certain other situations which have received careful study.

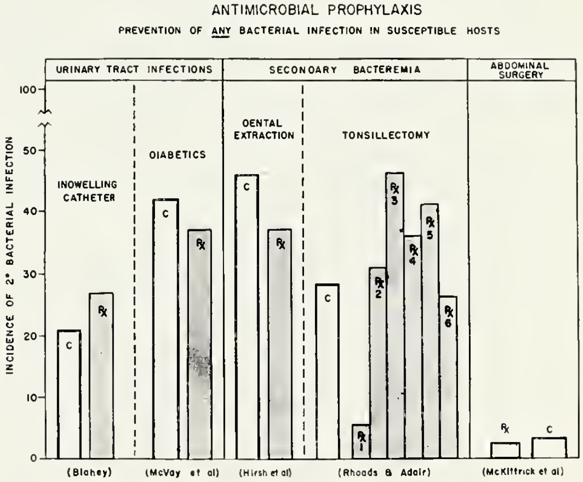

FIGURE 8

Studies on antimicrobial prophylaxis in certain other situations of special host susceptibility have failed to show a significant reduction in the incidence of infections (see text).

It has become apparent that antimicrobial prophylaxis does not significantly change the incidence of urinary tract infections in patients with local structural abnormalities or preceding renal damage. As noted in the first one-third of Figure 8, the administration of tetracycline in the presence of an indwelling catheter, or chlortetracycline to diabetics with urinary tract abnormalities, did not appreciably reduce the incidence of infection.[10, 11]

As indicated in the middle third of Figure 8, there is considerable question as to whether preliminary antimicrobial medication can even prevent the occurrence of bacteremia following dental extractions,[12] although the invading organism may differ in the patient under prophylaxis. Only one prolonged regimen was shown to reduce the incidence of bacteremia following tonsillectomy in a recent study by Rhoads and Adair.[13]

McKittrick and Wheelock have analysed the incidence of infection in 160 patients undergoing abdominal surgery including gastrectomy, biliary tract surgery, or colonic resection.[14] One-half of this group of patients received no antimicrobial therapy pre- or postoperatively. No differences in the subsequent incidence of infection were noted in these two groups.

These studies are disturbing. Obviously they do not include all the areas of increased host susceptibility in which antimicrobial prophylaxis has been considered or attempted. They nevertheless indicate that prophylaxis in situations of altered host defense mechanisms may not solve the problem of secondary bacterial infection. It appears progressively clear that the administration of antimicrobials under host circumstances which make infection likely may lead to invasion by unusual micro-organisms insusceptible to the antibiotics in use.

In large hospitals the administration of antimicrobials to altered, abnormal, susceptible hosts has led to many problems. Super infections, including fatal staphylococcal enterocolitis, disseminated monilial infections, and severe and confusing hypersensitivity reactions, appear to be almost as frequent as the infections which prophylactic therapy is designed to prevent.

It would appear that the use of prophylactic antimicrobials requires careful consideration of just what is to be prevented. In circumstances where infection by a specific bacterium is considered likely, prophylaxis may be of considerable value. When abnormal host conditions predispose to infections by any of a variety of micro-organisms, antimicrobial prophylaxis frequently fails, and indeed may create yet more difficult therapeutic problems.

THE USE OF IN VITRO ANTIMICROBIAL SENSITIVITY TESTS

Study of the *in vitro* sensitivity of micro-organisms can be of considerable help in determining the appropriate therapy for certain types of infection. Nevertheless, as the use of this laboratory aid has become extensive, it is clear that sensitivity studies may be of little assistance or actually misleading in certain instances.

Antimicrobial sensitivity tests are often important in making decisions regarding the management of patients with endocarditis, persistent bacteremia, or urinary tract infections. Antimicrobial sensitivity studies are also of value when the infection under treatment is due to staphylococci, streptococci other than group A, or gram negative bacteria. These micro-organisms manifest wide strain variations in antimicrobial sensitivity.

In contrast to the preceding infections, sensitivity tests are of no value in the treatment of infections due to pneumococci, group A streptococci, gonococci, and meningococci. These infections can be managed properly without recourse to sensitivity studies. Pneumococci, streptococci, and gonococci are predictably sensitive to penicillin. Sulfadiazine remains the drug of choice in meningococcal infections.

In certain clinical situations, *in vitro* sensitivity studies can actually lead to errors in management, and may lead the physician to choose an inferior antimicrobial regimen or to switch to less effective antimicrobial therapy.

The usual disc or test tube sensitivity test is a bacteriostatic test. Thus the sensitivity end point represents the suppression of microbial growth rather than actual destruction of micro-organisms. In the majority of clinical infections it is probable that mere halting of bacterial multiplication allows host defense mechanisms to overcome the infection. However, in certain infections, notably bacterial endocarditis, host defense mechanisms appear unable to cope with infection even if microbial growth s suppressed for long periods of time. In this situation it seems probable that antimicrobial therapy must be bacteriocidal. Sensitivity reports on enterococci isolated from patients with bacterial endocarditis may lead the physician to initiate therapy with broad spectrum antibiotics when penicillin and streptomycin are actually the therapy of choice.

In certain situations, sensitivity studies may confuse rather than clarify therapy.

We are commonly confronted with patients with persistent urinary tract infections who have received one antimicrobial after another in rapid succession. Cultural data have revealed that as one micro-organism disappears from the urine, another bacterium resistant to the antimicrobial then in use takes its place. This sequence is endlessly repeated.

In many instances the basic problem is recognized: local obstruction, malignancy or calculus has created a situation in which infection is inevitable. The offending pathogen represents the micro-organism which can gain entrance, survive, and multiply in this situation. Antimicrobials can modify the milieu in which a pathogen must maintain a foothold, but they do not alter the basic underlying problem.

Chronic local suppurative infections to which micro-organisms have ready access are frequently treated on the basis of sensitivity studies performed on superficial invaders. Often the basic underlying disease is unrecognized. Patients with tuberculous or actinomycotic sinus tracts may receive changing antimicrobial regimens depending on the sensitivities of saphrophytes which are of little basic significance.

It is worth stressing that the cultural finding of rapidly changing flora, resistant to the antimicrobial then in use, rarely explains the persistence of infection. Local abnormalities in structure, function, or vascular supply are generally at fault when this occurs, and the micro-organisms isolated are frequently unimportant invaders.

In many of these situations the underlying pathologic changes cannot be reversed, and the physician is forced to proceed on a day to day basis with shifting, suppressive therapy. It should be recognized, however, that antimicrobial therapy can rarely eradicate infection under such circumstances, and that changing bacterial flora is to be anticipated.

CONCLUDING COMMENTS

I have attempted to outline some of the problems which are encountered in the use of the antimicrobial drugs. Although it is clear that these drugs are used excessively in current practice, the lack of swift, simple diagnostic tools make it difficult to withhold antimicrobials in situations where bacterial infection seems likely.

Despite the low incidence of toxicity, serious untoward reactions can follow the use of many of the antimicrobials. I have thus attempted to present some criteria which may aid in deciding when antimicrobials can be withheld until diagnosis is achieved, and when antibacterial drugs must be promptly administered despite the absence of a specific bacteriologic diagnosis.

It has become apparent that certain specific infections can be prevented by the use of prophylactic antimicrobials. Nevertheless, prophylaxis has been discouraging where antimicrobials have been used to prevent infection in altered susceptible hosts at high risk from *all* bacterial infections. More objective studies are needed in this area. Until the value of prophylaxis in situations of abnormal resistance is proven, it would appear wise to substitute careful asepsis and observation for antimicrobials in the management of certain of these problems.

Sensitivity studies and other laboratory aids can be of tremendous help in the management of certain patients with infection. Nevertheless, many infections can be properly treated without such laboratory information if the infecting micro-organism is known and the physician recognizes what can and what cannot be expected of antimicrobial drugs.

Most of the acute bacterial infections of man can be effectively controlled by antibiotic agents now generally available. It is nevertheless apparent that bacterial infections have not been eradicated as a cause of human illness. Current evidence suggests that new antibiotics directed against bacteria will not solve this problem, and the Antimicrobial Utopia illustrated in Figure 9 appears an unlikely future prospect.

It is probable that certain bacteria, which commonly live quietly within us will continue to produce active disease in situations of reduced host resistance. Information about the precise biologic and biochemical defects which characterize increased susceptibility to infection may offer a new approach to the human infections which are currently causing therapeutic difficulties.

The author is indebted to Mr. Albert Sway for the pen and ink drawings used in this paper.

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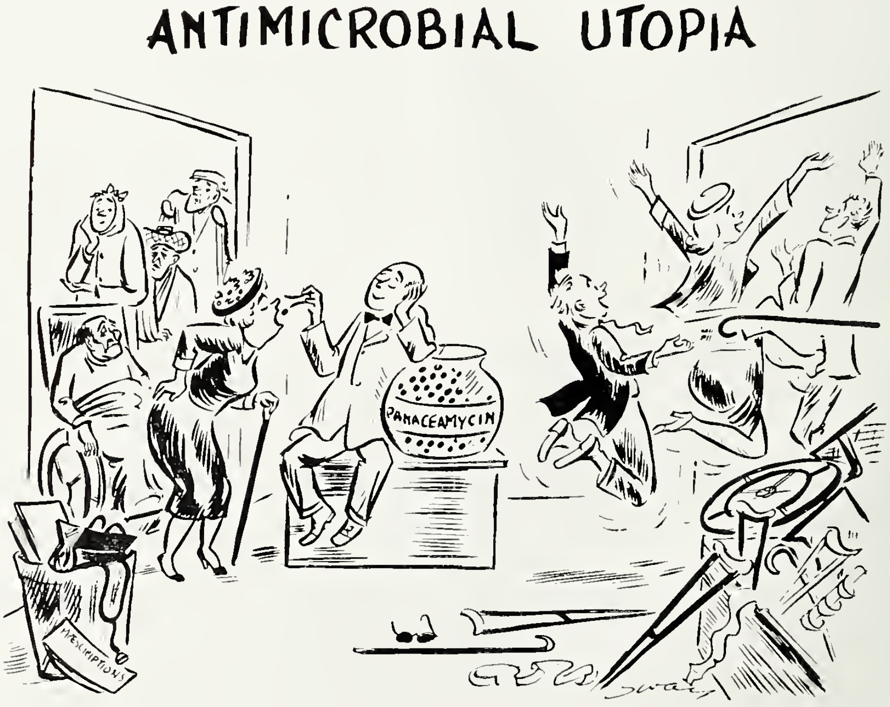

FIGURE 9
Fond hopes to the contrary, it appears unlikely that the Utopia picture above is an immediate prospect. Certain bacterial infections remain a cause of significant human illness.

AMERICA'S STAKE IN MEDICAL EDUCATION

The Hon. Marion B. Folsom, *Washington, D. C.*

You may well feel that the crucial role of medical schools in our society is as obvious to others as t is to you. But the first point I would like to impress upon you today is that this is not so. The fact is the American people generally have little appreciation of the great issues hanging in balance n medical education at this time. Yet these issues nvolve no less than their own good health and the trength, vitality, and security of this country.

It is true that the average American has an ardent interest in medicine as the science which keeps him and his family alive and much healthier han they might have been a few years ago. But omehow, in marked and perplexing contrast, his nterests do not seem to extend to the medical chools which have made so many of these benefits possible.

I cite three examples of difficult health problems which have deep social and economic implications and which call for increasing attention to medical education.

The first of these problems is the rapidly rising cost of medical care—one of the people's most pressing health problems today. Medical care costs in recent years have increased twice as fast as the general cost of living, and the cost of hospitalization alone has increased 70 per cent in the past eight years. Although dramatic progress has been made through voluntary health insurance in helping people to pay for medical care, in too many cases the coverage is still not adequate and too many people still have no health insurance protection at all. I hope that you as medical educators will increase your efforts to lead the profession to recognize the deep concern of the American people over the rising cost of medical care; that you will encourage doctors to give wholehearted support and active leadership in the expansion and improvement of voluntary health insurance; and that you will encourage the profession to exert every effort in other appropriate ways to help meet these critical problems.

The Author. *Secretary of Health, Education and Welfare*

Second, medical schools can increasingly perform valuable services in preparing the profession for a broader approach to chronic diseases and other health problems of the rapidly growing number of older persons in our society. Some chronic diseases can be prevented. Some disabilities from chronic disease can be partially overcome by community programs of education and service. Older people can benefit from health counseling and the specialized skills of nurses and social workers. They need educational and recreational opportunities. Many communities need more facilities and personnel for rehabilitation of the handicapped, for nursing homes, for diagnostic centers, for home care. Medical schools should give increasing attention to the need for these facilities and services, and encourage doctors to work with others in their community to see that these needs are met. And medical schools can help teach in this field by their own example—by continuing to provide some of these needed services in areas near the schools.

Finally, there are certain health problems which are growing more acute as our society becomes increasingly urbanized and industrialized. These are problems developing from conditions in the community as a whole, rather than individual conditions. I would cite, for example, the terrible toll of accidents, the growing hazards of air and water pollution, and the difficult problems of increasing exposure to radiation. Medical schools should train doctors to recognize the broad nature of these problems and be prepared to work with diverse public and private agencies. This requires training and skills in public affairs which the medical schools only a few years ago may hardly have considered necessary for a doctor's portfolio of talents. But these are basically health problems, and the public wants and needs the leadership and guidance of its doctors in meeting them.

Excerpts from an address delivered at the 68th Annual Meeting of the Association of American Medical Colleges, Atlantic City, N. J., October 21-23, 1957 and published in Journal of Medical Education, December, 1957

WOODRUFF CENTER

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SUMMARY

The State of Connecticut has recognized the problems associated with the chronically ill by creating a Commission on the Care and Treatment of the Chronically Ill, Aged and Infirm. To restore the patient rather than merely furnish custodial care, centers such as Woodruff are being established.

Clinics are held at the Center where each patient's condition is evaluated and plans laid for his care. The Center also offers an unique educational opportunity to general practitioners. This Center is but one facet in a program being developed for the aged by all who are interested, both public agencies and private individuals.

All physicians, and most people are aware of the constant and fruitful efforts that have been made in medical education and care since the Flexner Report of 1907. A noticeable improvement took place in definitive standards for specialty groups, and more recently general practice has been lending itself to all advances shared by other categories.

It was quite natural therefore that local and State governments should avail themselves of the vast strides in medical care which might benefit the patients for whom they were responsible. There is evidence that by virtue of these improvements the responsibilities of government have increased in direct proportion to longevity. Our favorable socioeconomic status, which contributes to longevity, has further increased the governmental burden. This is not meant to detract from the widespread voluntary methods of financial help to our aging population.

The authorities in Connecticut early took note of problems associated with the chronically ill, the aged and the infirm. The importance of these problems was recognized by public health officials, medical societies and legislators who thought that a considerable investment of State finances was warranted.

One outgrowth of this activity was the creation of the Commission on the Care and Treatment of the Chronically Ill, Aged and Infirm (C.I.A.I.), to which was given the responsibility for preparing a program to discharge adequately the duties of the State.

By now physicians have outgrown the old concept of custodial care; they believe in active therapy aimed at "restoration" as far as possible. This development was inevitable because of demonstrated potentialities of restoration latent in this segment of the population. Political, social and economic factors led to an active exploration of the field for the purpose of developing facilities for carrying out a program of advanced therapeutic measures.

The aim of this particular type of care is to restore the patients to society with as nearly normal relationships as is possible and practical. It is evident that to accomplish this result patients in whom such care is indicated should be carefully directed to institutions developed for special purposes, and their status and number must be consistent with the beds and personnel available. In this plan every bed occupied is therapeutically active.

In Connecticut, as in other States, such centers as Woodruff are conducting more or less pilot programs capable of developing yard-sticks for future efforts and operations.

It is important to emphasize that in all C.I.A.I. efforts all categories of personnel must be devoted servants of the patients. This is the case at Woodruff. Physicians who are interested should plan to visit the hospital on Wednesdays at 5:00 p.m. Grand Rounds or the evaluation clinics to hear most illuminating discussions of "the entire patient." They will hear a review of the clinical picture and the progress under treatment, also of the psychological and psychiatric features, and estimates of the anticipated environment after discharge, which might promote favorable follow-up care. There is liaison with social agencies and the Visiting Nurse Association to help in this work lest gains made at Woodruff be lost. A majority of citizens and a number of physicians do not fully understand the program and its significance. The lack of understanding might cause impatience with the size of the patient load and the specific selection necessary to gain the greatest social and economic benefits. The aim is to do what is possible to get these people back to the family and community, and even into industrial occupations suitable for handicapped individuals. This makes the State's financial expenditure an investment in human welfare, and fills in more adequately the mosaic of the care of the chronically ill. Also, as stated, the V.N.A. and social service workers augment the program. Spiritual affairs are not neglected, as religious leaders are invited to aid in recovery.

There is still another potential by which the Center can serve the citizens, namely, educational. Physicians anticipating general practice would derive great advantage from experience in this facility. This might accomplish a dual objective: first, to train the physician to treat more effectively such patients as will make up a large percentage of his practice; second, it might well include the training of personnel for future similar institutions. In regard to the first of these, we believe that a year of residency at Woodruff would constitute a valuable education for the generalist, assuming of course that he had already completed a year of rotating internship in a general hospital. Presently it may be outside the pale of internship training, except in cooperation with a general hospital on a rotating basis. It seems logical to have such a teaching service in mind, because the field of chronic disease care is growing both absolutely and relatively. We estimate that it might constitute 20 per cent of the urban practice of a generalist, and perhaps 50 per cent of his rural practice.

If one questions the wisdom of a State medical facility undertaking the development of an educational program, he may be reminded that education is inherent in modern medical care. More recent developments have so formulated it that the two go together in an overwhelming percentage of facilities, both public and private. By their nature they are inseparable. The limitations are due more to the lack of available personnel, or to its maldistribution, than to any unwillingness to assume it.

Woodruff is not experimental, except as a continuing experience is so rated. It is an active therapeutic center, with proven restorative procedures capable of both care and teaching. This teaching applies to physicians in both urban and rural areas. The patient load, though apparently small, has excellent educational potentials because of emphasis upon physical diagnosis, physical medicine, re-education of patients, psychological and psychiatric evaluations, environmental studies, and progress evaluation.

The future of Woodruff is by no means totally projected. It is possible that both conventional methods and advisor (preceptor) programs, both intramurally and extramurally, may develop as a practical means of follow-up to prevent the loss of gains made while in the institution. At any rate the problem is being attacked, and this may help to develop the best possible medical care that Connecticut can give those for whom it is responsible. The problem is wide in range. While the State and communities are improving their services to the aged, let us never forget that there is also plenty of room for private voluntary effort, both as an opportunity and as a duty. The aged, as well as the young, are entitled to have programs developed in their behalf in the fields of nutrition and recreation, and government is ever willing to lend its example and knowledge to help all agencies. It is a problem based in the hearts of all the people.

In completing this review it may seem appropriate to record briefly the development of the Woodruff from its inception. When the State Commission first decided to establish the facility in New Haven, Dr. Sidney Shindell presented the matter to the New Haven Medical Association. He made the point that in developing such a facility the Commission should associate with itself a local group of physicians, designated as the Advisory Committee, and associated with the Advisory Committee of the State Medical Society. This set up a total group which included the Commission itself, represented by Dr. James R. Miller and Dr. John C. Leonard of Hartford and the late Dr. A. Nowell Creadick, representative members from the State Medical Society and the local committee. During the early stages Dr. Frieda G. Gray was appointed to head the program at the Center. She has done a remarkably fine job, both in the development of the physical plant and in the establishment of its medical program. At this writing the Connecticut Commission presents an accomplishment in this field which deserves the high regard of the community.

NEEDLE BIOPSY OF THE PROSTATE IN CARCINOMA

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SUMMARY

The use of needle biopsy in twenty cases of clinically evident prostatic carcinoma is presented. A plea is made to establish tissue diagnosis in all cases of carcinoma of the prostate before therapy is begun. The technique is described in detail.

The purpose of this paper is to reestablish and affirm the position of the needle biopsy in tissue diagnosis of carcinoma of the prostate. In particular, we feel that its use is unexcelled in establishing a tissue diagnosis in those patients who are suspected of having carcinoma of the prostate and in whom the disease is felt to be beyond radical surgical therapy. The procedure seems to have fallen into disrepute today, apparently because it is felt to be inaccurate. We have found it a simple, safe technique for securing an accurate diagnosis prior to therapy and have found follow-up studies made statistically significant by virtue of having a definite diagnosis on record. We are aware of one case of fourteen year survival which is not statistically valid because the original diagnosis and treatment were purely clinical. It was not until eleven years later that a needle biopsy provided tissue confirmation. We are certain that similar situations can be avoided by the use of this method.

We have elected to use the Vim-Silverman biopsy needle and found it satisfactory with the following technique:

> The patient is placed on the cystoscopy table in the lithotomy position and the genitalia and perineum are prepared with Phisohex and aqueous Zephirin. The perineum is exposed by holding the scrotum and penis anteriorly by means of a damp towel, thus protecting the perineum throughout the remainder of the procedure. At a point approximately one and one-half centimeters above the anus in the midline, the skin and subcutaneous tissues are infiltrated with 1 percent procaine to a depth of approximately two centimeters. The gloved finger of the left hand is then inserted into the rectum and the site for biopsy determined by palpation. With this finger maintained in this position throughout the procedure, the Vim-Silverman needle with obturator in place is inserted into the previously infiltrated site. Slowly during this phase of the procedure the needle point is directed anteriorly and laterally to avoid penetrating the rectal mucosa. This can be accomplished very easily by following its course with the rectal finger. When the prostatic capsule is reached, the obturator is withdrawn, one cubic centimeter of procaine is instilled and a moment or two allowed for full effect. This decreases the sensitivity of the capsule to penetration. The obturator is replaced and the instrument then advanced through the capsule and into the area of prostate from which the biopsy is taken. The cutting element is slowly inserted to its full depth. It gives a characteristic resistance as it cuts into prostatic tissue. The sheath is then advanced while holding the cutting element stationary, so that the blades are completely covered by sheath. This enables a complete clockwise rotation of the blades which maneuver isolates and frees the specimen for removal. After removal of the cutting element with its contained specimen, the obturator is replaced immediately. The specimen is re-

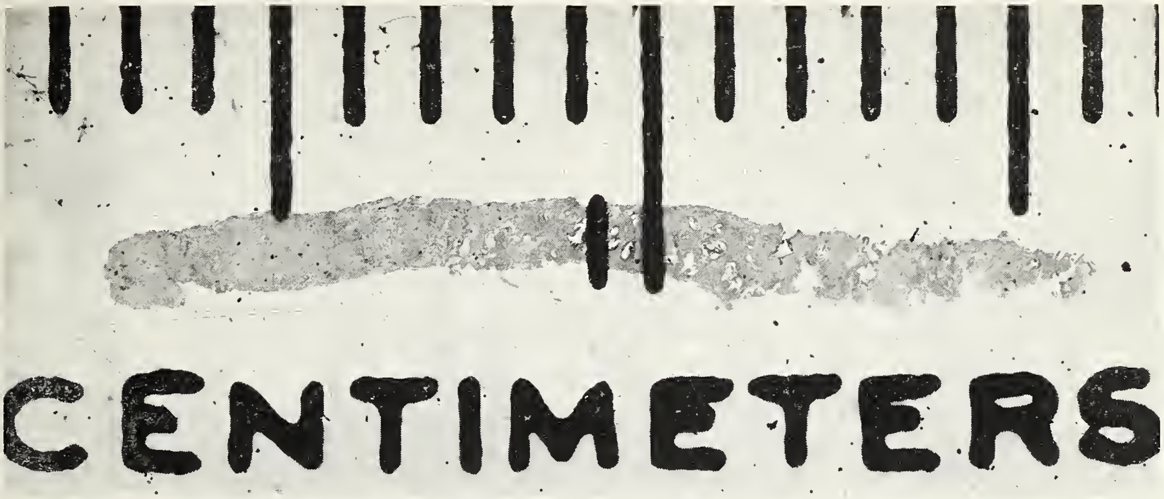

Figure 1

moved and placed in a fixative solution. Following removal of the cutting element, some bleeding may be noticed, but we have found this to be minimal and easily controlled by a few minutes of manual perineal and/or rectal pressure. If necessary, biopsies may be performed on different areas in a similar manner. Following performing of a biopsy the patient should be given broad spectrum antibiotics and hot sitz baths. We have deferred rectal examinations and enemas for three days following biopsy.

Specimens obtained average 10 to 12 mm. in ength and have been adequate for diagnosis in all ases to date. Depicted in Figure 1 is a representa ive specimen showing the size and gross appear nce. Figure 2, a and b, shows typical examples of the microscopic appearance of those specimens. (See below.)

Table I

	ACID	BONY		
AGE	PHOSPHATASE	METASTASES	COMPLICATIONS	BIOPSY RESULTS
54 to 80 yrs.	17 normal	5 positive	none	20 positive
	3 elevated	15 none		

As one can see from the above table, we have been 100 percent successful in establishing a tissue diagnosis in these twenty cases. There have been no undesirable side effects. We feel this good result is due to the fact that these patients were deliberately selected. They all showed obvious carcinoma on rectal examination. There was only

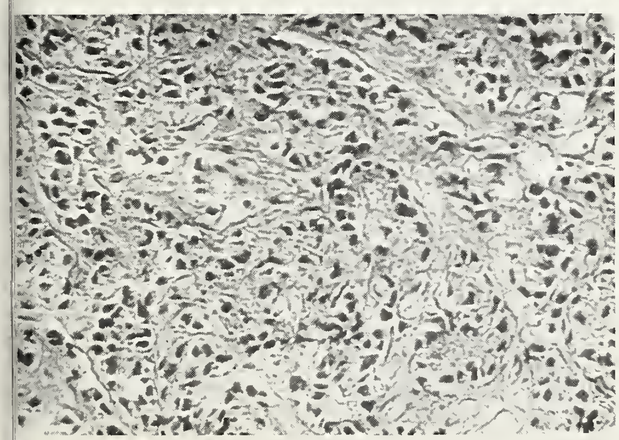

Figure 2a

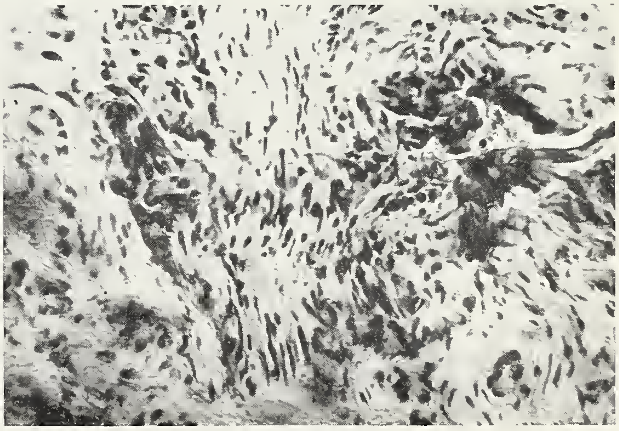

Figure 2b

one patient, however, in whom the diagnosis was not clinically obvious. Needle biopsy of a small nodule by this technique proved him to have carcinoma and enabled early removal of the gland by radical prostatic surgery. While we do not advocate this technique as being accurate for small nodules, we do feel that because of its simplicity it should be employed. If it is inconclusive and one still suspects carcinoma, then we advocate open perineal biopsy. In none of the cases presented here have we needed to resort to other means of biopsy to establish a correct tissue diagnosis.

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NEW HAVEN SMALL PLANT MEDICAL PROGRAM

How an effective medical program for small plants can more than pay its way is shown here, along with the history of the plan and how it operates

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Two and one-half years ago, six industrial firms in New Haven, Connecticut, agreed on a cooperative plan for medical services in their respective plants. The project was cooperative in several respects: the companies would share the expenses of a doctor to set up and administer the medical programs of each of the six firms; these companies would buy certain pieces of medical equipment for their joint use; and there would be intercompany reciprocity in utilizing medical facilities should the need arise.

The plan, known as the New Haven Small Plant Medical Program, was started with some degree of speculation as to the ultimate success of the venture, despite the companies' belief that their plants needed better medical facilities. But already, even at this early stage of the program's development, there is factual evidence of its value, and the company managements have overcome any doubts that may have existed.

EVIDENCE OF PROGRAM'S ACCOMPLISHMENTS

The participating companies provide significant figures to indicate that the plan has brought savings in lost time—both from occupational and non-occupational causes—and a sizable reduction in workmen's compensation and other insurance costs. For example, one firm which has an employee health insurance plan that starts payments on the first day of absence due to illness is experiencing a considerable decrease in one- and two-day absence claims. This decrease can be seen when the company's over-all medical care expenses for the past three years are examined. Figures for all three years cover the costs of the health insurance plan workmen's compensation and all medical services

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However, in 1954 the medical service category included only first-aid costs at the plant and the services of outside doctors for preplacement examinations. In contrast, the 1955 and 1956 medical service figures include the cost of the newly established in-plant medical plan, with its full-time nurse and its part-time doctor. Here are the cost figures:

YEAR	ANNUAL MEDICAL EXPENSES
1954	$38,330.71
1955	34,386.72
1956	29,030.30

In other words, the savings effected in health insurance and workmen's compensation costs, as a result of having in-plant medical services, far exceed the cost of instituting these services. And these figures cover only the first two years the plan has been in existence.

Savings in lost time due to sickness and injury for this same company are shown in the chart. These data represent sickness and accident records in the company's operating department for a three-year period, which includes the year before the cooperative plan was initiated. Except for a seasonal fluctuation when respiratory ailments were frequent, there has been a steady decrease in lost time as the following figures show:

YEAR	TOTAL NO. OF MEN OFF PER DAY FOR INJURIES	AVERAGE MAN-HOURS LOST ANNUALLY DUE TO INJURIES & SICKNESS
1954	4.4	12,984
1955	3.1	9,187
1956	2.6	7,631

The injury frequency rate for this operating department dropped from 17.64 in 1955 to 5.71 in 1956. And the average days lost per injury in 1955 were twelve compared to four in 1956.

EXPERIENCES OF OTHER PARTICIPANTS

Another firm participating in the Small Plant Medical Program reduced its lost days due to injuries from eighty-nine in 1953 to zero in 1956. (See Table I.)

TABLE I

DECREASE IN ONE PLANT'S LOST TIME FROM INJURIES

YEAR	NUMBER OF CASES TREATED	TOTAL DAYS LOST	AVERAGE DAYS LOST PER INJURY	TOTAL MAN-HOURS LOST	TOTAL WORKING HOURS IN YEAR
1953	820	89	.108	712	580,917
1954	529	61	.115	488	419,996
1955	522	2	.0038	16	358,838
1956	616	0	0	0	380,668

It is true that working hours were greater in 1953 than in 1956, due to more overtime. But a study of the figures shows that in 1955, when the new medical service was in operation, the drop in time lost from injuries was still significant, even considering the rather large drop in total working hours. But what is more significant is the 1956 decrease to zero in man-hours lost for injuries, despite an increase over 1955 in hours worked.

A third company participating in the medical plan also has experienced a decrease in injuries and lost time in the past two years, as is shown in the following tabulation:

YEAR	TOTAL NUMBER OF ACCIDENTS	ACCIDENT CASES TREATED BY DOCTOR	LOST-TIME ACCIDENTS	LOST WORK DAYS DUE TO INJURIES
1955	46	38	8	398
1956	34	31	1	3

Still another company says it has had no lost-time injuries in the past eighteen months.

INSURANCE CARRIERS' REACTIONS

The improvement in the fifth firm's accident and health records is cited in the following letter written to the company by its workmen's compensation insurance carrier in the summer of 1956. It reads:

> "Your accident experience improved appreciably during the current policy year. The frequency for the previous year was 16.6 lost-time accidents per million man-hours worked as compared with 0.0 frequency for the past nine months. This improvement can be attributed in a large degree to increased interest in safety by line personnel, and to the improved medical program that not only resulted in better treatments for injuries as well as more effective health counseling, but also was the means of creating an awareness of accident potentials by providing good accident statistics and summaries to key people regularly."

The sixth company's record showed such an improvement after two years of participation in the cooperative medical program that its insurance company rebated 39.5 per cent or $4,800, of the premium paid for 1956.

FURTHER BENEFITS

The above figures pertain, primarily, to the companies' savings in lost time and insurance costs. The managements of these companies are also enthusiastic about other health and time-saving aspects of the program. Foremen are pleased, for example, that employees can be treated on the premises for minor occupational injuries and on-the-job illnesses that might otherwise cause many hours of absence. In the past, employees were inclined to go home when they became indisposed on the job, and frequently they remained at home the following day. Now they report to the medical department, and if the indisposition is not serious they are given medication and advised to rest on the dispensary cot for an hour or two. Thus, the individual in most instances is soon able to return to his job.

Various other benefits commonly attributed to the preventive medicine approach are also being realized by these companies. Among these is the early detection of physical ailments, with subsequent referrals of these employees to their family doctors for treatment. Another benefit results from the company doctor's practice of referring employees to their family doctors for treatment of conditions that cause frequent absences. In many cases, after the condition is treated, the frequent absenteeism of these employees ceases.

Then, too, the medical director of the cooperative plan is making a special effort to reduce the lost time of the chronic "sick complainers" who often miss a day or two every few weeks. In some of these cases, the doctor finds mental therapy is helpful.

HISTORY OF THE PLAN

The Small Plant Medical Program was initiated by the manufacturers division of the New Haven Chamber of Commerce at the suggestion of the Connecticut State Bureau of Industrial Hygiene. This bureau is interested in helping stimulate small plants to provide in-plant health programs. The Chamber of Commerce originally approached about a dozen firms in the New Haven area to discuss the idea of a cooperative plan. As a result, six companies[1] decided to initiate a plan modeled after the Hartford Small Plant Group Medical Service—another Connecticut cooperative venture for small companies, which was founded in 1946.[2]

It was agreed that the member companies would share the expenses for the services of one doctor, each paying according to the amount of time devoted to that company's individual needs. The intercompany reciprocity feature of the plan is the willingness of each participating firm to permit its medical facilities to be used by another member in case of emergency. For example, if the doctor is in attendance at Company A, and an employee of Company B is injured so badly as to require his attention (instead of a nurse), the employee may be brought to the doctor in Company A's dispensary. Or, if the employee is injured too badly to be moved before medical examination, the doctor can be "borrowed" from Company A to make the emergency call. Occasionally, another company's dispensary may even be used for the preplacement examination of a plant's job applicant. Such a situation might arise if an employer is eager to put a new employee on a job but must await the doctor's medical recommendation as to the individual's job placement. Then the new employee (or applicant) may be sent to the plant where the doctor is located at the time.

GETTING THE PLAN STARTED

For four companies, the initiation of the cooperative medical plan meant starting from minimum services provided by first-aid medical kits located throughout the plants. Only one company, O. F. Mossberg & Sons, Inc., already had a nurse and a dispensary. Another, Bradley Laboratories, was using the Visiting Nurse Service and had facilities for administering first aid.

However, adoption of the medical plan did not entail costly installation of dispensaries. On the contrary, the physical layouts and equipment have been kept to a minimum. This has been done partly because of the experimental nature of the program and the original questioning attitudes of the employers concerning its chance for success. Also, everyone actively concerned with the venture has been determined to keep expenses as low as possible to prove that a worthwhile medical program need not be too costly a project for small companies. These people feared that if the program became too costly, it might get behind the familiar eight ball before it could stand on its own merits.

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[1] Because one of the original founders reduced its work force to a skeleton crew, it withdrew from the plan. But the group still includes six members because another firm joined at the end of the plan's first year of operation.

[2] See "Cooperative Medical Programs—A New Solution for Small Companies," *Studies in Personnel Policy,* No. 137.

PHYSICAL LAYOUT

Space for medical quarters is still at a premium in most of the firms; many of the dispensaries have had or are having growing pains. Merely to obtain some kind of medical quarters was, in several cases, quite an undertaking because of space limitations. At C. Cowles & Company, for example, the medical unit started functioning in what had been a thirteen- by five-foot first-aid room. Later, the dispensary was moved to an infrequently used seven- by eighteen-foot mimeograph room in another section of the factory.

Storeroom space was commandeered for the New Haven Gas Company's two-room dispensary. Prior to that, a first-aid kit had been located in the office of the safety director.

What is now the dispensary at Echlin Manufacturing Company was formerly a small section of the shipping department. The quest of Bradley Laboratories, Inc., for medical quarters led to the requisition and renovation of a lavatory. And space was lopped off the general office area for the dispensary at New Haven Malleable Iron Company.

EQUIPMENT

In several instances, ingenious makeshift devices are successfully substituting for more expensive medical equipment—another means of keeping costs within a small company's budget. An example of this is one company's use of an airfoam mattress on top of two kitchen tables for its examining table. And instead of buying mechanical air pressure apparatus, two companies have hooked up their plants' regular air pressure lines to their medical departments and use reducing valves to lessen the air pressure so it can be used to operate hand vaporizer attachments for the treatment of upper respiratory conditions. Another improvisation is a discarded beauty-shop hair drier rigged up to serve as a steam vaporizer.

Medical equipment which is owned by the group includes some portable machines—for example, an audiometer for testing hearing and a visual testing machine.[1] The manufacturers division of the Chamber of Commerce is designated as custodian of such equipment although it is always at one of the companies' dispensaries. The reason for this is to avoid confusion should the group enterprise have to come to an end.

THE DOCTOR'S SCHEDULE

The doctor's regularly scheduled plant hours are in the first half of the day (see Table II).[2] The original agreement between the companies and the doctor guarantees payment for these scheduled hours. The doctor is permitted to take on private practice patients if he wishes, but he must also be available, at an additional charge, for other company calls upon his services.[3]

When this schedule was set up, everyone concerned believed there would be considerably more call for the doctor, but no one could anticipate how great this demand would be. Actually, what has happened is extensive use of the doctor's afternoons. Special preplacement examinations as well as the many increasing duties involved in the maintenance of the health program are filling the doctor's time.

Among these additional services, for example, are voluntary periodic physical examinations that are offered to employees on an annual or bi-annual basis (depending upon the physical condition of the individual); immunization shots for influenza and poliomyelitis; diabetic screening; testing for visual acuity and hearing; chest x-rays of employees (arranged by the doctor and the city health department which has a mobile x-ray unit); and medical counseling services to employees. In addition, at New Haven Gas Company, where field employees often work in undeveloped community areas, poison ivy immunization shots are available.

Along with these various duties, of course, the doctor carries on his regular services of treating occupational injuries of employees, consulting with supervisors regarding job placements, offering advisory assistance in safety programs, studying medical records to determine needs for follow-up exam-

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[1] Since the group's original purchase of the audiometer, one company has purchased a machine for its exclusive use.

[2] The doctor has provided standing orders for each company nurse to follow when he is on duty at another plant.

[3] The doctor who contracted to take on this assignment had personal reasons for moving to New Haven and was, accordingly, willing to assume the position as medical director of the plan without an initial guarantee for full-time use of his services. However, had more than six companies signed up for the project, this guarantee could have been made in the beginning.

TABLE II

THE DOCTOR'S SCHEDULE

HOURS	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
8- 9 a.m.	Company A	Company B	Company A	Company B	Company A
9-10	Company B	Company F	Company F	Company F	Company C
10-11	Company C	Company C	Company C	Company C	
11-12	Company D	Company G*	Company E	Company H*	
12- 1 p.m.	Company E				
1- 5	Special overtime duties at all companies				

*Companies G and H are two "try-out" firms that are at present considering the advisability of becoming full participants in the plan under a proposed expansion. And if more companies are signed up as permanent members, arrangements will be made to provide an assistant to the doctor.

inations of employees, preparing medical reports for management, etc.

Another phase of the service extended to employees by the doctor or nurse is administration of prescribed therapy upon the request of the employee's own doctor. Insulin shots for diabetes are an example of service sometimes requested by private doctors.

NURSING PERSONNEL

Even after the plan was started, not all companies took on full-time nurses. C. Cowles & Company and Echlin Manufacturing Company, for example, shared a nurse in the beginning. (Each company used the nurse for half a day.) Now both these firms have fulltime nurses.

Bradley Laboratories, which had used the Visiting Nurse Service before joining the small plant group, continued this arrangement for the first year of the plan; then it started its present procedure of having a nurse half days.

O. F. Mossberg & Sons already had a full-time nurse when the joint plan was instituted, but it had no in-plant doctor supervision of the medical service. And New Haven Gas Company took on a full-time nurse when it established its medical service.

The sixth participant, New Haven Malleable Iron Company, does not have a nurse; but a male first-aid attendant is always available. This attendant keeps a medical log for the doctor and takes care of emergencies until the physician can be reached.

PREPARING THE PLANT PERSONNEL

After the companies agreed to have in-plant medical facilities and arranged for their institution, they issued memorandums to their employees explaining the medical service and the reasons for it. The matter also was thoroughly explained to supervisors at some of the monthly safety meetings.

ADMINISTRATION OF THE PLAN

Each member of the New Haven Small Plant Medical Plan has one individual, the coordinator, who is responsible for the program's business administration. In five companies the coordinator is the company's personnel manager. In the sixth, he is the safety engineer. It is to the coordinator in each company that the doctor reports.

The manager of the manufacturers division of the Chamber of Commerce is the entrepreneur for the group. He arranges for the business meetings of the coordinators, draws up the contracts between the companies, and between the companies and doctor, and decides upon the doctor's proposed purchases of special medical equipment for the group.

The coordinators and the Chamber of Commerce representative have yearly meetings (more often if necessary) in order to discuss the business details of the program, draw up a new contract guaranteeing each member's support of the plan for another year, and talk over any problems that may have arisen.

HOW PAYMENT IS MADE

The contract between companies provides for the payment of fees to the doctor as follows:

> "The medical consultant shall bill each company for its share of said fee on a monthly basis for the regularly scheduled hours and such excess hours performed during the month. Each company shall honor such bill and forward payment to the medical consultant not later than ten days

following receipt of the bill. All pay and fee relationships will be handled on an individual basis by each company in ccordance with its selected method of payment."

ROBLEMS ENCOUNTERED

Problems encountered during the development of the plan have been few. One which was anticipated, and to a great extent alleviated, was a cerain amount of questioning on the part of some ommunity doctors as to the necessity for such a plan—a situation not uncommon in industrial medicine. In an attempt to prevent misunderstandng, representatives of the Chamber of Commerce nd the Connecticut Bureau of Industrial Hygiene met with the local medical society before the plan was initiated to explain it to the group. The doctor hosen to be director of the plan also met with the medical society and explained the preventive aspect of the program.

Some question may still exist on the part of a few doctors as to the value of the plan, but, on the whole, backers of the medical plan say the medical practitioners are beginning to realize that a program of this kind is likely to stimulate people to visit their own doctors.[1]

Another initial problem was to gain the confidence of employees, some of whom at first feared that introduction of a medical program might mean the weeding out of employees suffering from certain infirmities. Patience and diplomacy on the part of the doctor and nurses, plus management's assurances that the program was provided to keep people on their jobs rather than to dismiss them, soon overcame that obstacle.

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[1] Increased calls on private-practice doctors result from the company doctor's referrals and from greater health consciousness on the part of the employees.

In spite of what you may think, this writer found the Russian Communist people overserious and overzealous. They are still in the crusading stage. Their strength lies in supreme vitality; social equality of all their people; and recognition of woman economically and intellectually.

A DOCTOR'S GLIMPSE OF MOSCOW

William Beecher Scoville, m.d., *Hartford*

The Author. *Visiting Neurosurgeon, Hartford Hospital, Hartford, Connecticut and Ass't. Clin. Prof. Neurosurgery, Yale Med. School*

SUMMARY

This is an account of the difficulties one physician encountered in visiting Russia. His impressions of Moscow as a city are quite favorable, that of the appearance of the people themselves, especially the women, somewhat drab. Some of the opinions expressed concerning the attitude of the Muscovites toward their government and toward the West may be surprising. The Institute of Neurosurgery in Moscow receives passing comment as well as commendation for its excellent surgical work.

This semi-scientific travelogue has been written because of the vivid and often contradictory impressions gleaned from a rapid trip to Moscow in he course of visiting Soviet Russia's neurosurgeons. The purpose of this trip was to contact Soviet Russia's neurosurgeons and tender a formal invitation for the Iron Curtain nations to attend the First International Congress of Neurosurgery to be held in Brussels in 1957. After the international cooperation shown at the Geneva Conference, hopes were engendered of obtaining a tourist visa, and application was made with the approval of our State Department and finally obtained through the London Soviet Consul-General some two weeks later. Both in Washington and London I first came into contact with fundamental differences between the workings of Communist and Western beaurocracy. In the Soviet, only the senior man had authority or knowledge to grant requests. His subordinates appeared to have no knowledge of such transactions nor even of the whereabouts of their bosses. This absence of liaison within and between Soviet agencies and absence of "public relations" and knowledge of English by subordinates accounts for the apparent lack of cooperation and "playing dumb" policy of which the Soviets are so constantly accused by news correspondents. In this particular instance there was no lack of cooperation for in the end all agencies made every effort to cooperate and succeeded in granting all the requests when they were under no necessity to do so. However, the uncertainty and disregard for time, ending always with the request "to come back tomorrow," resulted in a war of nerves most disturbing.

After surrendering my passport to the London consul and receiving it ten minutes before the plane left at the London airport, I flew via Paris, Prague, Vilna, to Moscow, using Czechoslovakian and Soviet Aeroflut Airlines. After some persuasion they accepted international airlines credit card so that the trip could be carried out without exchange of dollars. Fortunately a Soviet graduate student, Mr. Schavedov, on the philological faculty of Moscow University, was a companion on the plane and introduced by the London Soviet Consul. He had just received a scholarship to visit England to attend the Shakespeare Festival as his thesis was to be on Shakespearian tragedy. Ironically the festival was on Shakespearian comedy. I had suspected that Mr. Schavedov had been assigned to keep an official eye on me, but not at all. At the Moscow airport he bid goodbye and remained with me only on urgent entreaty which was a godsend as we arrived at Moscow at 2:00 in the morning without money, and no English was spoken.

Mr. Schavedov arranged with the Government in-tourist agency night man for accommodations at the Hotel Nationale, a shabby but once grand hotel at the turn of the century where the lesser foreign visitors now live. This hotel is on a very large square adjacent to the Red Square of the Kremlin, and each hotel has an in-tourist agency on its ground floor at which all foreigners must transact their business. Again, upon visiting this office, by Western standards there was utter confusion. It was run by five girls, none of whom spoke English and only one of whom spoke French. Memoranda were scribbled on scraps of paper and hidden away in a drawer. Permanent records were by pen and ink in old fashioned copybooks, and calculations were by the Chinese abacus system. Slavic resignation was everywhere apparent, and there was no organization for the handling of the tourist trade. There was not a map of Moscow to be obtained in the whole city. Moscow itself is a huge and sprawling city of seven million inhabitants. It is a beautiful city with extraordinarily wide streets, far wider even than Paris, spotlessly clean, with big buildings, and constant washing of both streets and pavements. Traffic is only about one tenth as heavy as in comparable American cities but what there is of it is modern in every respect and very similar to ours, with large electric buses, some trolley cars, big trucks and passenger cars which are similar to our Packards and Buicks of the '40's with a sprinkling of small cars in addition. There are five Russian cars, the Zis, the Zis 110, the Zim, a new Russian Volga, and the outdated Moskovitch. The big cars are underpowered in comparison to ours as are their commercial planes which are copies of a DC3 with noisier and rougher engines and slower acceleration on take-off. Impression on the streets is one of general shabbiness of the population. Their clothes are of inferior quality, and I saw no neckties on the streets, and at the ballet and opera less than half the audience wore neckties. The women are proud of not using makeup nor having an eye to sex appeal. They are rather scornful of the American woman with her stress on the above. In Russia everyone works. Women have their careers exactly as do men. There is no economic distinction made between them, and they feel that a life of pleasure or play is only for the very young. Here again, they stress that the wealthy women of America lead a life only of amusement while the poorer women of America spend their lives in menial drudgery. It is true that all women of intelligence share with men the interesting jobs in medicine, in the professions, in industry, and I noticed them driving the largest buses, etc. The children are brought up by those persons too old to work — grandparents — and day

FIGURES 1 AND 2
Successful removal of difficult brain tumor. (Meningioma)

nurseries are prevalent everywhere. Apparently the majority do not have many children. Housing is still a big problem, most families having only three-room apartments and no family owning a home in all Moscow.

The original plan to have the largest skyscraper in the world has been changed to a plan for a number of small skyscrapers, of which eight have now been constructed. Seven are apartment houses and one is the University of Moscow which is some thirty-eight stories high and has dormitory facilities for six thousand students. These buildings are impressive and have a certain attractiveness from sheer size but asthetically the style is a bastard compromise between Byzantine and functional. The people unquestionably work hard and all work equally hard. Very few children are seen on the streets. Those who are seen are generally with their fathers who were good to them, carrying them on their shoulders and showing many kind actions. There seemed to be no facilities for amusements. Very few movie theaters exist, no nightclubs, no afterdark entertainment. The Soviets appear almost grimly serious in life and have the same indication of hurrying of which the United States is accused by the rest of Europe. The subways are filled to bursting with people, and the writer was jostled and pushed exactly as in Times Square. Superficially, the people on the street are not at all prepossessing looking. They appear stolid, almost expressionless, not at all curious about foreigners and appear of peasant origin. Belying this is their sincere and deep love of music and of dramatic arts, especially ballet. Long lines form nightly before the Bolshoi Theater which is packed for the opera and ballet where the costumes, scenery, settings and music are luxuriant and in exquisite artistic grace and taste.

Either the Western nations have been filled with as much propaganda against Russia as they have against us, or there has been an apparent complete reversal of foreign attitudes since Stalin's death. At any rate, I feel sure that there is no great fear of secret police or of reprisals or punishments by the common people of the streets and little businesses. The police guarded the entrance of Krushoff and Bulganin to the ballet but the people showed no fear and carried on a good natured jostling as occurs in American cities. The police were particularly gentle to drunks, which are quite common, treating them somewhat like children in great contrast to our New York police force. There was no enmity demonstrated towards foreigners, including myself, although they are not particularly curious. They appeared generally fond of America and envious of its output and the quality of its products. They frankly admitted the quality of their civilian goods was inferior. They are honestly convinced of their own democratic form of government and say that they permitted Stalin to attain a completely autocratic rule, not because of the form of government

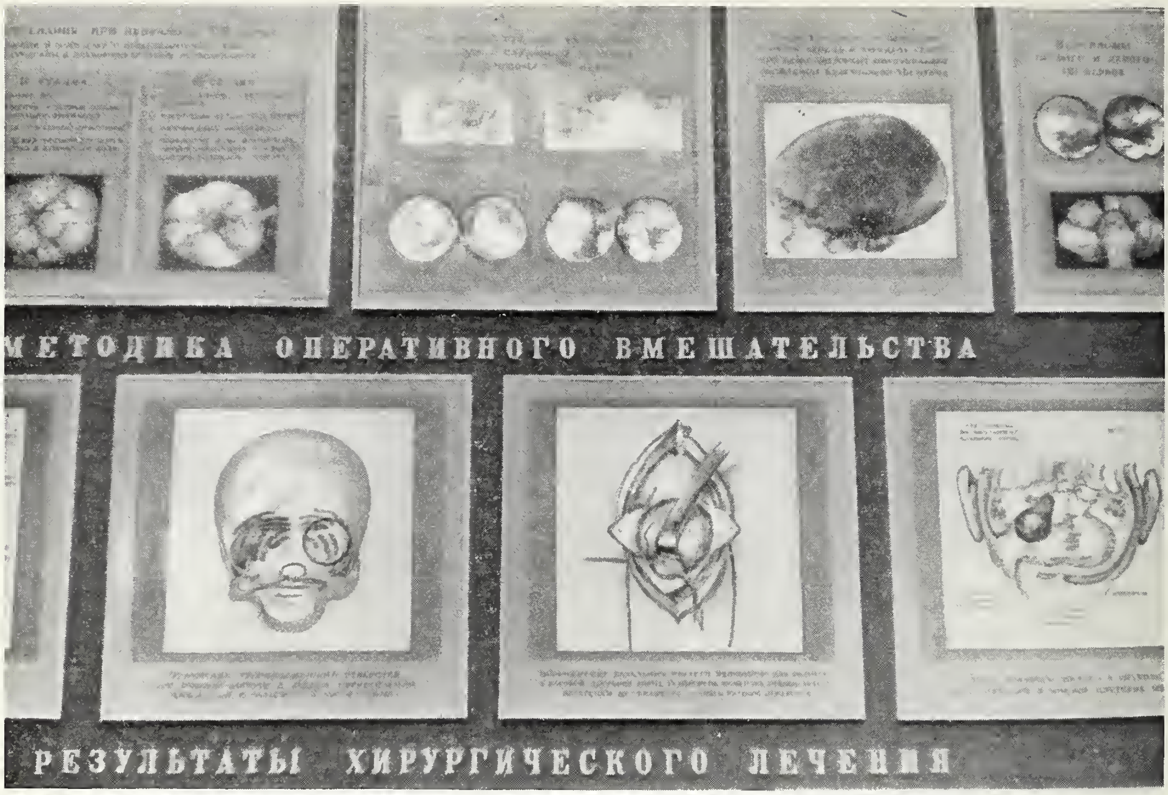
МЕТОДИКА ОПЕРАТИВНОГО ВМЕШАТЕЛЬСТВА
РЕЗУЛЬТАТЫ ХИРУРГИЧЕСКОГО ЛЕЧЕНИЯ

Figure 3
Institute of Neurosurgery (Egorov, director). Exhibit of surgical approaches to various types of brain tumors.

but because of his having saved Russia from defeat by the Germans. He was their man of will, they trusted him with their fate, and he fulfilled their trust. Hence, they gave him all out of love and gratitude. They say that since his death there is no dictatorship; that their government policy is dictated by their central committee and politbureau, elected from their grand congress and this congress is elected from representatives extending down through the various Soviet districts and even individual factories, and it is probably quite true that few if any Americans know how the Communist congress representatives and central committees are actually elected.

In an academic discussion of ideologies the average Western democrat is unable to hold his own. The Soviets feel that a loyal opposition is actually an undemocratic form of government; that the majority party should have absolute rule; and that opposition parties represent minorities and should not be permitted to veto the policies of the majority. There appears to be no discontent by the common people with their own government. Most of us forget the enormous strides made in freedom by the Communist government since the Tsarist regime, and it is my belief that Soviet citizens will never rebel or show serious dissatisfaction because of the paramount sense of social democracy in Moscow. There appears to be no caste system and even the military seem to have no privileges in public places. Uniforms and military forces were common, probably about ten times as common as in America, but the people paid little attention to them. The sense of social equality and possibly the high economic status held by women may well account for the hold Communism has throughout the backward nations. There is absolutely no distinction made in class, color or race. Mongols and Orientals frequently hold important jobs. Women generally make incomes equal to men and even served as combat soldiers and jet pilots during the war. If the status of women is a sign of the cultural level of a nation, then Soviet Russia is far advanced over western democracies.

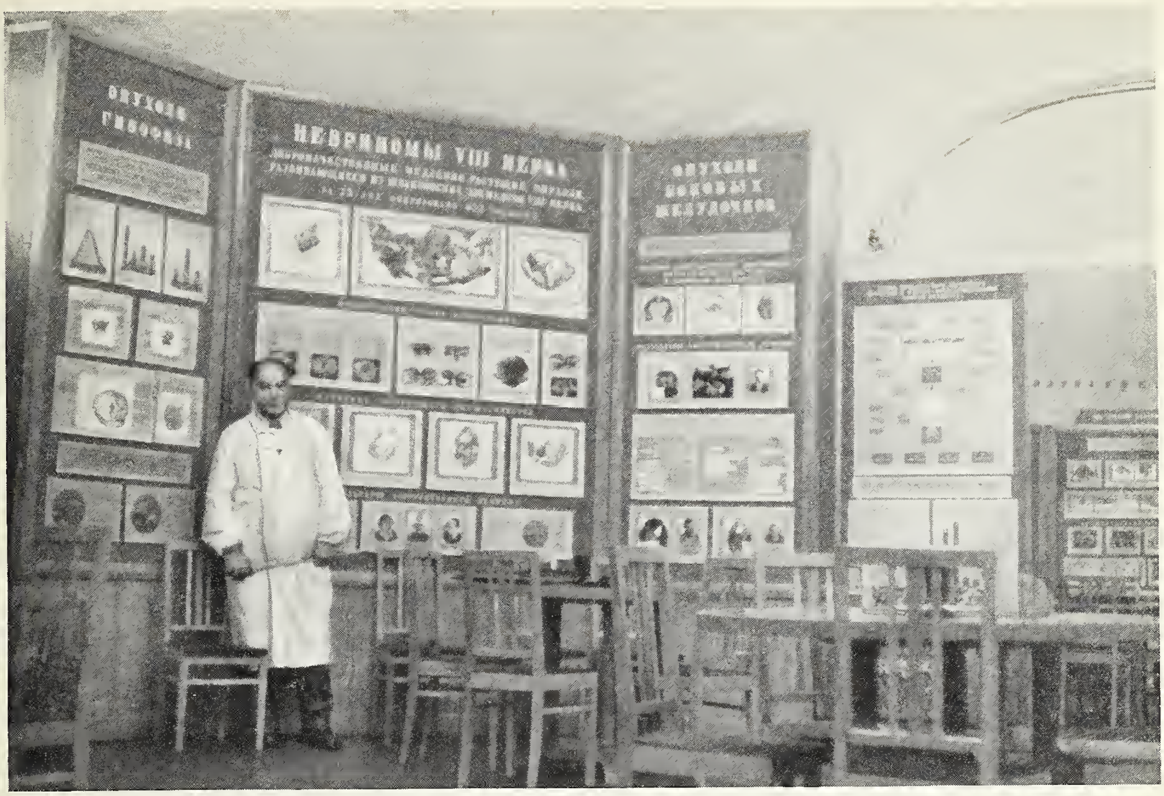

FIGURE 4
Professor Egorov, Director of Institute of Neurosurgery. Teaching exhibits of brain tumors.

In discussions on government, labor, costs of living and public health, the people are not only satisfied with their system but genuinely feel pity by and large towards the western democracies. Rightly or wrongly, they believe we have unemployment and they do not. They believe our labor does not have a hand in management, and they believe that they do. They are horrified about the organization of our medicine where a physician can refuse to care for a sick person if he has no funds to pay for it. They ask why, if we give free education to the minds of our citizens, we do not also give universal free care to the bodies. When I stated that we do, they said yes but on a charity basis. They go on to say that our medical professors waste much of their time taking care of the minor ailments of our very rich because they are paid for doing so while their professors operate only on complicated surgical problems or spend their time on their research and teaching. In theory, the Communist ideologies are, of course, simply advanced socialism and I suppose must ultimately be adopted in highly industrialized states so that I had to fall back on the valid argument that empirically capitalist forms of government and economy worked more efficiently by permitting competition from the top to the bottom between all echelons of organization, but such arguments do not impress them for they know nothing of that type of competition.

Being a neurosurgeon, I spent the greater part of my time visiting the Institute of Neurosurgery at Moscow, without doubt the largest such institute in the world, with a capacity of four hundred beds and thirty-six qualified neurosurgeons with seven to ten years of experience. They operate on more than seven hundred brain tumors a year, and they have all of the ancillary neurological laboratories contained within the Institute's walls. The surgery was firstclass, the equal of the majority of countries in Europe, and made use of the traditional Harvey Cushing technique. Such a high degree of centralization results in a surgical factory which is somewhat similar to our own Mayo Clinic. Of interest is the fact that fourteen out of the thirty-six neurosurgeons are women, forty per cent of all surgeons are women, and eighty per cent of all Soviet doctors are women. Soviet weakness is in overall teamwork in which Communism so prides itself, and its strength is in the individual laboratory research which is superb. The workers are energetic, imaginative and truly dedicated scientists. Originally, all instruments and equipment were bought from the United States, Holland and Britain, but now have been replaced by those of Soviet manufacture. A visiting London sports writer recounted to me his own exceptional experience upon developing acute appendicitis in Moscow, requiring his transfer to the huge Bodinski Hospital. He viewed this with some trepidation but once admitted to the surgical pavilion he was impressed by the competence of the nurses, the food and the overall care. They used precise techniques and were fast operators, and he was back in his hotel in less than one week. Interestingly, a Mongolian performed the operation and all other doctors whom he saw were women. As an example of the classic background possessed by their doctors, Dr. Rappaport, professor of neurology at the Institute, made rounds with visiting allied doctors during the lowest ebb of Russia's fortunes, when the Germans were eighteen miles outside the gates of Moscow. In a unique gesture, Dr. Rappaport carried out his entire rounds in classic Latin for the comprehension of the English and French allies.

Summing up the impressions gained in Soviet Moscow, there were an absence of decadence, an absence of night life, economic equality of women and social equality of all peoples, brilliant individual achievements but organizational inefficiency. All of this suggests that the Communists are a people with a sense of mission. They are overserious and overzealous and still in a crusading stage. This is, of course, proof of abundant national vitality and may account for their manner of spilling over into other nations. The whole tempo is one of hurry and bustle with a sense of pride in their progress and an overall friendliness towards foreigners by the people in the streets.

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EDITORIALS

Another New Year

Doctors of medicine like every one else are wondering what this new year, 1958, will bring forth. The same turmoil and strife is present in the world today which existed a year ago: only the scenes have changed. Backward nations are reaching blindly for freedom. Sputniks have appeared in the sky. We in America are being chastened for not producing more scientists. Some one has called us a nation of high school graduates.

To the discouraged our Vice President issues a reminder that there is work to be done and from a prominent local executive comes the pronouncement that the need exists for stepping up our entire education program with emphasis, not on science alone, but on a well rounded foundation in the liberal arts as well. Our object, it has been said, is to develop men and women who "can advance man's eternal quest for truth, who have the courage and wisdom to make the right choice; men who can leave this world a better one than they entered." As physicians we have a share in our nation's future. Education is a continuing process, of this we are constantly reminded. As citizens as well as physicians we have a job to do in encouraging and supporting a sound educational program for the youth of America. This is the challenge of 1958.

Happy New Year!

The Antimicrobial Agents

In the article in this issue titled "Problems in the Use of Antimicrobial Agents" by Dr. David E. Rogers emphasis is placed on the enormous waste of antimicrobial agents at the present time, for only twenty percent of the patients receiving these agents have diseases or problems for which the drugs could conceivably be of any help.

In reviewing the situation the author is most understanding of the dilemma which faces the clinician who often is required to make a decision two to four days before adequate bacteriologic data are at hand. He points out the deficiencies of present laboratory tools and the need for rapid methods of identifying organisms and their specific sensitivities.

In treating patients with severe illnesses considerable judgment may be required. Dr. Rogers suggests that febrile illnesses which have been present for several days or more usually can be followed conservatively without compromising the outlook for the patient. In these fevers of unknown origin early administration of antimicrobials often obscures the diagnosis, and in some cases, such as bacterial endocarditis, the delay may permit further extension of a critical lesion. On the other hand, acute fulminating illnesses of brief duration may lead to a fatal outcome unless immediate therapeutic steps are taken. In such instances the physician is called upon to make an educated guess as to the probable etiologic organisms and to utilize appropriate therapy from the outset.

In the field of prophylaxis the antimicrobials are often useful when one's aim is to reduce the incidence of infection with a specific micro-organism, e.g., the gonococcus, the meningococcus, or the B. hemolytic streptococcus. On the other hand, attempts at prophylaxis of all infections are generally disappointing. This is particularly true because of the high incidence of situations in which one sees the development of resistant staphylococcus, pseudomonas, and proteus infections.

Dr. Rogers' guides are perhaps oversimplified rules of thumb, but they should prove helpful in meeting this oft recurring problem. Cost, resistant infections, and toxic reactions are reasons enough for a somewhat conservative attitude toward the use of the antimicrobials.

Making Friends

A small avalanche of letters descends on the Society's office continuously. Some are interesting, some are dull, some are difficult to answer and some are complaints. Every once in a while however, a good and gratifying one is received and the one quoted below falls into that class. We think it is good enough for everyone to see.

"This is to call to your attention my high degree of satisfaction with the prompt and efficient handling of a disability claim under the group policy held by the State Society from the office of Arthur W. Eade in New Haven.

"My claim related to a period of total disability immediately prior to the acceptance of my resignation from the State Society. The disability extended for some time following this as well. The insurance carrier lived up to its responsibilities promptly by returning the balance of the year's premium and by reimbursing me for the entire period of total disability. A check was received from them within a few days after evidence of the disability was submitted. Since insurance is a field with which I am quite familiar as part of my teaching responsibilites, I am particularly appreciative of the response of the Medical Society's carrier."

Ophthalmology

Ophthalmology, perhaps the oldest specialty in medicine, has offered many interesting and helpful ideas to the general medical fraternity.

From New Haven a series of seven articles intended to be of interest to other specialties and to the general practitioner are forthcoming in the Journal. New techniques in every branch of medicine are of interest to all physicians. Our joint aim is to understand, evaluate, and practice the best techniques of our age. We must keep abreast of other specialties. We must work in teams to secure the cures we desire. We must be able to "talk" to each other.

Medicine is complicated more these days than in the past, many research projects require the specialized knowledge of doctors of the basic sciences; and yet the advances in each specialty must be tested in that specialty before they are passed on to the profession at large. Many powerful ideas lead up a blind alley, while other accidental findings bring great benefits to mankind.

Proven advances are not long ignored by thinking physicians, busy though they are. New ideas promoted for individual or institutional gain rarely stand the prudent, dissecting inquisiton of the profession.

Ophthalmology is as volcanic as any specialty in determining which advances are true blue. But ophthalmology is suffering from superspecialization, as is all of medicine. We hear of eye clinics especially for refraction, for glaucoma, for retinal detachment, for crossed eyes, and now for aids to subnormal vision, and orthoptics as well as aniseikonia. Who is going to make the all important differential diagnosis? Must we have ophthalmic general practitioners?

The American Board of Ophthalmology is currently widely split by the theory that certain ophthalmologists should be certified as surgeons, while others should be "medical" ophthalmologists.

Let us not lose sight of two facts:

1. No group, either governmental or professional has ever been able to assure the success of all its individuals by "certification."
2. Cure of patients is the sole measure of success. When enough patients are cured, no certificate is needed. Our professional job is to keep false and fraudulent practitioners from preying on the public.

Ophthalmic education must fit its graduates to be well rounded in all diagnostic and therapeutic procedures: they are closely allied.

Fluoridation—The Real Issue

All the delegates to the American Medical Association's Philadelphia session were flooded with mail purporting to inform them on the good or evil of fluoridation, mostly on the latter. These letters, reprints, etc., served only to further confuse the issue and at the same time to confuse most of the delegates. It was a relief then to receive on arrival at Philadelphia a copy of the "Report of the Council on Drugs and the Council on Foods and Nutrition on the Efficacy and Safety of Fluoridation of Public Water Supplies." Note that it is not a report on whether or not communities should add fluoride to their drinking water. That is a matter for local decision. It merely informs the profession (and the public) that careful investigation has proven to this committee that fluoridation is a safe and practical method of reducing the incidence of dental caries during childhood. That is the real issue.

The Councils found no evidence to show that concentrations of one part per million of fluoride in community water supplies would lead to structural changes in the bones or to an increase in the incidence of fractures. The incidence of mottling of teeth based on thousands of observations occurs only in a small percentage of children who drink water containing fluoride up to the above mentioned concentration, is minimal in amount and detectable only by careful dental examination. Data are available from communities where the water supply has several times the concentration of 1:1,000,000. and no evidence of toxicity other than the effect on the enamel has been found.

The Connecticut State Department of Health released a report recently on the results of fluoridation of the water supply in New Britain for a period of six years. A reduction in the amount of dental caries in permanent teeth in that city since fluoridation was introduced was found to range from 57.4 per cent in the six year old group to 13.5 per cent in the sixteen year old group. The improvement in the number of caries-free sixth year molars has been 67 per cent in the six to nine year age group. The same holds for deciduous cuspids and first and second molars to a lesser degree.

In approving the fluoridation of public water supplies as a safe and practical method of reducing the incidence of dental caries during childhood, the House of Delegates of the American Medical Association refused to consider whether or not such a procedure was morally right, or whether or not it encroached on a citizen's personal liberty. Such issues must be settled as they are in our democracy, at the local level.

The public must not think that by fluoridating its water supply it need disregard all other aids for the prevention of dental caries in the young. It continues to be of the greatest importance that, with or without fluoridation, we use all possible means such as proper diet, good hygiene, and any other aids which will improve the health of our children.

AMA Council Reports on Medical Education

During 1956-57 the schools of medicine at the University of Mississippi and the University of Missouri graduated their first classes. The University of Florida Medical School, Gainesville, Fla., and Seton Hall College of Medicine and Dentistry, Jersey City, N. J., enrolled their first classes.

Beginning in September 1960, the University of West Virginia will enroll third year medical students. At present it has only a two year school of basic science. First classes will be admitted at the University of Kentucky, Lexington, in 1959 or 1960.

Thirty-three schools reported initiation or completion of major construction projects. Nineteen began projects estimated to cost about $32,200,000, while 20 completed projects representing an investment of $67,500,000.

There were 1,646 women enrolled in medical schools during the year, and 330 women were graduated in 1957.

Ninety American citizens were enrolled in the 12 Canadian medical schools, while eight Canadians were in U. S. schools.

Much financial support has been given to the schools by two organizations, the American Medical Education Foundation, which is supported by physicians and medical organizations, and the National Fund for Medical Education, which draws its funds from industry and the Ford Foundation. During 1956, 39,892 contributors gave the foundation $1,072,727, an increase of 40 per cent over 1955. The National Fund gave $3,066,450 to medical schools last January.

PROGRESS IN CLINICAL MEDICINE

PRIMARY GLAUCOMA

New Trends in Care of the Eyes

B. D. Zuckerman, m.d., and R. M. Fasanella, m.d., *New Haven*

This is the first of a series of papers to acquaint medical colleagues of ophthalmologists with recent advances in the care of the eyes. These discussions should be of interest to the profession as a whole. They are intended to be brief and are written in such a manner as to be understood by the general practitioner, pediatrician, internist, surgeon or psychiatrist. Many of these are problems which the medical doctor must try to consider in formal or informal consultation for patients and often for members of his own family.

Dr. Zuckerman. *Clinical Instructor in Ophthalmology, Yale University School of Medicine; Assistant Attending Ophthalmologist, Grace-New Haven Community Hospital, New Haven, Connecticut*
Dr. Fasanella. *Chairman, Section of Ophthalmology, and Associate Professor of Ophthalmology, Yale University School of Medicine.*

SUMMARY

Since two per cent of the normal asymtomatic population over forty has glaucoma, this disease is of great importance to every physician. The recent revision in classification of primary glaucoma is interpreted. Methods of diagnosis are proposed. Therapy is explained in order that the nonophthalmologist will be able to aid his own patients in the proper care of glaucoma.

In a random unselected population over the age of forty, two per cent will have glaucoma. Unless their disease is discovered either early at a routine examination or late after severe field losses have made them seek help, these unsuspecting, symptom-free victims are doomed to be blind. With the increasing size of our over-forty population, there is no need for a detailed explanation of the importance of widespread dissemination of our recently gained knowledge concerning glaucoma, sometimes spoken of as "the thief in the night." The physician himself or a member of his immediate family may be the one person in fifty who, unsuspectingly, has glaucoma.

Since ocular hypertension which is secondary to a known pre-existing eye disease will probably already be under observation by an ophthalmologist only primary glaucomas will be considered here.

In terms of the recent classification there are two basic types of primary glaucoma. This simple classification is both anatomic, physiologic, and clinical. The two types are differentiated anatomically by the appearance of the angle formed by the junction of the cornea and the iris. This is the region of the trabeculum overlying the canal of Schlemm through which the aqueous flows on its way out of the eye. Unless a gonioscopic contact lens is placed on the cornea, this angle is inaccessible to direct visualization by the ophthalmoscope or biomicroscope (slit-lamp). With this lens it is possible to see whether the iris is in contact with the cornea and therefore obstructing the entrance to the canal of Schlemm, causing closed angle glaucoma. If the angle structures are visible, then the obstruction to the outflow of fluid must be beyond the anterior chamber. This is called open angle glaucoma. Almost universally in the open angle type,[1] glaucoma results from blockage of the flow out of the eye rather than from an increased production of aqueous.

"Acute," "congestive," "narrow angle," or "closed angle" are terms which are used to categorize the first type of primary glaucoma. This is the variety which the average practitioner thinks of when the term glaucoma is mentioned. Actually this type amounts to only ten per cent of the cases. It is true that it is the most dramatic. Because of his symptoms of pain, blurred vision, halos about lights, a red-appearing eye, and nausea or vomiting which are due to an acutely elevated intraocular tension, this type of glaucoma brings the patient for immediate help. This picture of glaucoma presents no problem in diagnosis.

The second type of primary glaucoma is called "chronic", "noncongestive", "wide-angle", or "open-angle" in type. Ninety per cent of the cases fall into this category. In all but advanced cases the diagnosis is extremely difficult to make. Unfortunately, usually "cupping" of the optic nerve head is such a late sign of this type of glaucoma that the patient is beyond help. The symptoms are minimal or nonexistent. The only way to make an early diagnosis is to measure the intraocular tension with either a standard Schiötz tonometer or the simplified cheap Berens-Tolman hypertension indicator.[2] The latter instrument indicates whether the tension is high or low and thus serves to indicate which patients should be referred to an ophthalmologist for more detailed study. The Berens-Tolman device is also designed to withstand rough handling, such as occurs in a physician's bag. This handling would not be tolerated by the standard Schiötz tonometer. The one major fault of the Berens-Tolman tonometer is that it is difficult to read the scale. Estimating ocular tension by digital palpation is worthless in all but the hardest eyes.

After the tension has been elevated for any length of time, changes in the field of vision occur. These never occur at the point of fixation, so that the patient is entirely unaware of their existence. Unfortunately the standard field examination is too time consuming to be used as part of a routine screening examination to discover glaucoma. Although efforts[3] are being made to design an instrument that will quickly produce fields comparable in accuracy to those done by the standard tangent screen and perimeter technique, this time factor has yet to be overcome.

The etiology of open-angle glaucoma remains almost as obscure as ever. Most present studies are centered on demonstrating mechanical and chemical changes in the drainage apparatus around the canal of Schlemm. However, no uniform opinions exist. Closed-angle glaucoma, that is, the narrow-angle, can be thought of as due to a slight anatomic variation combined with some intermittent stimulus, such as darkness or excitement, that moves the iris close enough to the cornea to get it jammed into the angle of the anterior chamber.

Once the diagnosis of glaucoma has been made, the treatment lies wholly within the realm of the ophthalmologist. Since the therapy is diametrically opposite, it is important to differentiate primary acute glaucoma from acute iritis or iritis with secondary glaucoma. Miotics of various types, strengths, and frequencies are used to check an acute attack of primary glaucoma. If the flow of aqueous out of the eye cannot be adequately increased by miotics, then the production of aqueous may be diminished by systemic medications. Clinically, the flow of aqueous through the eye may be measured by utilizing the technique of tonography.[4] Diamox in particular has proved invaluable in breaking an acute attack that in previous days would have necessitated an emergency operation on an acutely inflamed eye. This averts what was in many cases a prelude to a very poor result.

With the exception of the management of the congestion phase, Diamox is contraindicated in the closed-angle type of glaucoma.[5] In the open-angle type of glaucoma, when combined with miotics, Diamox can be used in doses as large as 1000 mgm a day or more for prolonged periods. However, periodic blood counts and urines are essential. Tingling of the extremities, nausea, vomiting, and a picture simulating renal colic are among the adverse side effects of Diamox.

The therapy of a primary glaucomatous eye that is not in an acute attack depends on what type of glaucoma is present. If the operation is done early enough in the course of the disease, a closed-angle glaucoma can be completely cured by a surgical iridectomy. Thus freedom from constantly using medications and the fear of blindness can be lifted off the shoulders of many of these patients. Unfortunately for the majority of cases, that is, the so-called open-angle variety, no such cure can be offered. The open-angle cases and the late closed-angle eyes which have many adhesions of iris to cornea blocking the entrance to the canal of Schlemm are better treated with miotics. Contrary to our previous feelings in these types of glaucoma, no surgery is advised if the ocular tension can be reasonably controlled without it. Surgery in these latter cases gives at best only fair results as far as immediate loss of vision and ultimate control of tension.

As far as their glaucoma is concerned, patients with coexisting vascular hypertension and glaucoma do better than their normotensive glaucomatous counterpart. Therefore, before starting antihypertensive therapy on patients who have coexisting glaucoma, it is wiser to weigh the effects of each disease.

Prognosis depends on many factors. The two most important of these are the anatomic type of the glaucoma and the stage at which the diagnosis is established. A closed-angle glaucoma can be completely cured operatively, but the open-angle can never be thought of as being cured. The glaucoma at best is under control.

In the field of glaucoma, the picture at this moment is not rosy. However, the progress in diagnosis and treatment of the most important blinding disease of old age has been sufficient enough for even the most pessimistic observers to take heart.

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4. Grant, W. M. A tonographic method for measuring the facility and rate of aqueous flow in human eyes. A. M. A. Arch. Ophth. *44*: 204, 1950.

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Social Security

There is not an unlimited number of ways for Social Security to expand. Medical care is one of the few areas not covered by "social insurance," and the present framework of the Social Security Act is adequate to cover socialized medicine by means of a few amendments. The Disability Insurance "Trust" Fund could be changed into Health Insurance "Trust" Fund by the stroke of a pen. Taxes could be increased. A new title could be added to the law and the private practice of medicine could be virtually destroyed.

In one way or another, on one excuse or another, social security tax payments are being boosted every year or two instead of at five-year intervals as originally planned. In 1954, the base was raised from $3,600 to $4,200. In 1956, the tax rate was increased. Now, Rep. Kean wants to raise the base rate from $4,200 to $4,800 beginning in 1959. Then in 1960, the tax rate is scheduled to increase 1/2 per cent for both employee and employer, and 3/4 per cent for the self employed. There is no way of knowing just how expensive social security "insurance" is actually going to be.

Federal Medical School Aid

Failure to help meet the needs of medical schools would be the worst kind of false economy. The administration's pending $225 million program of construction grants would bring classrooms and laboratories much closer to current and projected needs.

THE SECRETARY'S OFFICE

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CALENDAR OF MEDICAL MEETINGS

The Secretary's office frequently receives inquiries from members of the Society concerning the date and location of important medical meetings particularly those to be held outside of the United States. Advance knowledge of these meetings is important so that a physician wishing to attend may make necessary plans. We are pleased to publish a list of such meetings for 1958 and acknowledge the assistance of the World Medical Association in its compilation.

1958

JANUARY

2-8—New Delhi
Indian Science Congress Association—45th Meeting
The General Secretary
Indian Science Congress Association
1, Park Street
Calcutta 16, India

11—London
Physiological Society—Meeting
Dr. J. A. B. Gray
Physiological Department
University College
Gower Street
London, W.C.1, England

28-30—London
Ciba Foundation—4th Colloquium on Ageing
The Ciba Foundation
41, Portland Place
London, W.1, England

FEBRUARY

1—New York
Pan-American Congress of Ophthalmology
Dr. William L. Benedict
100 First Avenue Bldg.
Rochester, Minnesota

1-14—Second Cruise Congress on the S.S. Queen of Bermuda
Pan-American Association of Ophthalmology
Dr. William L. Benedict
100 First Avenue Bldg.
Rochester, Minnesota

12-13—London
Royal Medico-Psychological Association
The Royal Medico-Psychological Association
11 Chandos Street
London, W.1, England

21-22—London
Physiological Society—Meeting
Dr. J. A. B. Gray
Physiological Department
University College
Gower Street
London, W.C.1, England

MARCH

7-8—London
Thoracic Society
Dr. Kenneth Robson
72, Harley House
London, N.W.1, England

9-14—Los Angeles
11th Congress of the International College of Surgeons
Dr. K. Meyer
Secretary
1516 Lake Shore Drive
Chicago 10, Illinois

18-20—London
Ciba Foundation Symposium on "Amino Acids and Peptides"
The Ciba Foundation
41, Portland Place
London, W.1, England

20-22—Chicago
Chicago Heart Association Meeting
Dr. Wright Adams
Chairman, Symposium Planning Committee
Chicago Heart Association
69 W. Washington Street
Chicago 2, Illinois

21-22—London
Physiological Society—Meeting
Dr. J. A. B. Gray
Physiological Department
University College
Gower Street
London, W.C.1, England

28-29—Cambridge
British Tuberculosis Association—Meeting
British Tuberculosis Association
59, Portland Place
London, W.1, England

APRIL

4-12—Athens and the Isle of Cos
4th International Congress of Neo-Hippocratic Medicine
Prof. Pavlakio
Faculty of Medicine
Athens, Greece

9-11—Montpellier
12th National Congress on Tuberculosis
Comité Nationale de Défense contre la Tuberculose
66, boulevard St. Michel
Paris 6, France

9-14—Rome
13th Congress of the International Association of Applied Psychology
Dr. C. B. Frisby
14, Welbeck Street
London, W.1, England

10-12—Belfast
Association of Surgeons of Great Britain and Ireland
Joint Secretariat
45, Lincoln's Inn Fields
London, W.C.2, England

13-18—Davos
3rd International Congress on Physiology and Winter Sports
Dr. F. Jakob
Krankenhaus
Davos-Platz
Switzerland

16-19—Madrid
5th International Congress of the International Academy of Legal Medicine and Social Medicine
Prof. B. Piga
University of Madrid
Madrid, Spain

17-19—Cardiff
Ophthalmological Society of the United Kingdom
Joint Secretariat
45, Lincoln's Inn Fields
London, W.C.2, England

18-19—Leeds
Physiological Society—Meeting
Dr. J. A. B. Gray
Physiological Department
University College
Gower Street
London, W.C.1, England

23-25—London
Ciba Foundation Symposium on "Recent Contributions of Medical Biology to Ethnology"
The Ciba Foundation
41, Portland Place
London, W.1, England

24-26—Philadelphia
International Congress of Internal Medicine
Dr. Karl A. Meyer
1516 Lake Shore Drive
Chicago 10, Illinois

28-May 2—Eastbourne
Royal Society of Health—Annual Congress
The Secretary
Royal Society of Health
90, Buckingham Palace Road
London, S.W.1, England

MAY

3-4—Brussels
General Assembly of the International Union for Health Education of the Public
M. Lucien Viborel
92, rue St. Denis
Paris 1, France

11-15—Paris
65th Congress of the French Society of Ophthalmologists
Dr. Guy Offret
16, rue de Logelbach
Paris, France

14-24—The Hague
Reunion of the European Academy of Allergy
Dr. W. J. Quarles van Ufford
Emmalaan 17
Utrecht, Netherlands

19-24—Brussels
2nd World Congress for the Prevention of Industrial Accidents
M. G. de Rees
29, avenue Andre-Drouart
Auderghem—Brussels

20-23—London
Ciba Foundation Symposium on "Biosynthesis of Terpenes and Steriols"
The Ciba Foundation
41, Portland Street
London, W.1, England

23-24—Leeds
Association of Physicians of Great Britain and Ireland
Dr. Fletcher
Postgraduate Medical School
Ducane Road
London, W.12, England

25-29—Washington, D. C.
3rd World Congress of the International Society of Gastroenterology
Dr. H. Pollard
University of Michigan
Ann Arbor, Michigan

26-30—Singapore
Asian Paediatric Congress
Organizing Secretary
Paediatric Unit
General Hospital
Singapore

29-June 3—Moscow
12th International Congress on Sports and Medicine
Prof. G. La Cava
Secretary-General
International Federation of Sport and Medicine
Foro Italico
Rome, Italy

31—Oxford
Physiological Society—Meeting
Dr. J. A. B. Gray
Physiology Department
University College
Gower Street
London, W.C.1, England

JUNE

6-8—Briançon
2nd International Congress of Climatology
Institute d'Hydrologie thérapeutique
Faculté de Médecine
8, avenue Rockefeller
Lyons, France

12-14—Scheveningen, Holland
6th International Congress of Life Insurance
Dr. F. Kaufmann
Genferstrasse, 35
Zurich 2, Switzerland

15-19—Halifax, Nova Scotia
Canadian Medical Association—91st Annual Meeting
The Canadian Medical Association
244 St. George Street
Toronto, Canada

16-20—Lisbon, Portugal
3rd Congress of the International Association of Child Psychiatry
Mrs. E. Irvine
14, Belsize Square
London, N.W.3, England

22-28—Montreal
2nd Congress of the International Federation of Gynaecology and Obstetrics
Prof. Leon Gerin-Lajoie
Suite 313
1414 rue Drummond
Montreal, Canada

23-27—San Francisco
American Medical Association—Annual Meeting
Dr. George Lull
535 North Dearborn Street
Chicago 10, Ilinois

25-27—Glasgow
Annual Conference of the National Association for Maternal and Child Welfare
The Secretary
National Association for Maternal and Child Welfare
Tavistock House North
Tavistock Square
London, W.C.1, England

25-July 1—Stockholm
11th Congress of the International Society of Urology
Dr. G. Giertz
Karolinska Sjukhuset
Stockholm 60, Sweden

24-26—London
Ciba Foundation Symposium on Carcinogenesis
The Ciba Foundation
41, Portland Place
London, W.1., England

JULY

1-4—London
5th Commonwealth Health and Tuberculosis Conference. Incorporating the Annual Conference of the British Tuberculosis Association
National Association for the Prevention of Tuberculosis
Tavistock House
Tavistock Square
London, W.C.1, England

6-12—London
7th International Cancer Congress
The Congress Secretariat
45, Lincoln's Inn Fields
London, W.C.2, England

10-18—Birmingham
British Medical Association and Scientific Meetings
The Secretary
British Medical Association
Tavistock Square
London, W.C.1, England

11-12—Cambridge
Physiological Society
Dr. J. A. B. Gray
Physiological Department
University College
Gower Street
London, W.C.1, England

15-21—London
Medical Women's International Association Congress
Dr. Janet Aitken
30a, Acacia Road
London, N.W.8, England

21-25—Dusseldorf
3rd International Diabetes Congress
Dr. K. Jahnke
Moorenstrasse 5
Dusseldorf, W. Germany

22-24—London
Ciba Foundation Symposium on "Regulation of Cell Metabolism"
The Ciba Foundation
41, Portland Place
London, W.1, England

23-25—Copenhagen
The Thoracic Society
Dr. Kenneth Robson
72, Harley House
London, N.W.1, England

27-August 3—Brussels
1st Catholic World Conference on Health
The Secretary
8, rue Traversiere
Brussels, Belgium

AUGUST

4-10—Stockholm
7th International Congress of Microbiology
Dr. C. G. Heden
Karolinska Institutet
Stockholm, Sweden

10-16—Burlington, Vermont
International Congress on Radiation Biology
Mr. John Coleman
Division of Physical Sciences
2101 Constitution Avenue
Washington 25, D. C.

11-16—Copenhagen
2nd International Congress of the World Federation of Occupational Therapists
Dr. Ingrid Pahlsson
Klintegaarden E.
Aarhus, Denmark

20-27—Montreal
10th International Congress of Genetics
Mr. J. W. Boyes
Department of Genetics
McGill University
Montreal 2, Canada

15-20—Copenhagen
12th General Assembly of The World Medical Association
Dr. Louis H. Bauer
The World Medical Association
10 Columbus Circle
New York 19, New York

28-September 1—Ottawa
The Secretary
Biometric Society
Rothampstead Experimental Station
Harpenden, Herts

SEPTEMBER

1-7—Vienna
4th International Congress of Biochemistry
O. Hoffmann-Ostenhof
Wahringerstrasse 42
Vienna 9, Austria

2-4—London
4th European Congress of Allergy
British Association of Allergists
Wright-Fleming Institute
St. Mary's Hospital
London, W.2, England

3-4—Glasgow
Physiological Society
Dr. J. A. B. Gray
Physiology Department
University College
Gower Street
London, W.C.1, England

5-13—Lisbon
6th International Congress of Tropical Medicine and Malaria
Dr. A. Dubois
Institut de Médicine Tropicale Prince Leopold
155, rue Nationale
Antwerp, Belgium

7-11—Tokyo
5th International Congress of Diseases of the Thorax
Mr. M. Kornfeld
112 Chestnut Street
Chicago, Illinois

7-11—Atlantic City
International College of Surgeons—23rd Annual Meeting
Dr. Karl Meyer
1516 Lake Shore Drive
Chicago 10, Illinois

8-12—Brussels
18th International Congress of Ophthalmology
Prof. Jules Francois
15, Place de Smet-de-Maeyer
Ghent, Belgium

8-13—Rome
7th Congress of the International Society of Hematology
Dr. C. Cassano
Patologia Medica Policlinico
Rome, Italy

8-15—Brussels
17th General Assembly of the International Pharmaceutical Federation and 18th International Congress of Pharmaceutical Sciences
M. Paul Degand
11, rue Archimede
Brussels, Belgium

9—Brussels
General Assembly of the International Association for the Prevention of Blindness
Dr. J. P. Bailliart
47, rue de Bellechasse
Paris 7, France

12-15—Beirut
7th International Congress of Hydatid Diseases
Dr. Elias Sader
rue Ibrahim Ahdab
Beirut, Lebanon

14-21—Brussels
3rd World Congress of Cardiology
Dr. F. van Dooren
80 rue Mercelis
Brussels, Belgium

25—Venice
3rd International Congress of Angeiology and Histopathology
Dr. L. Gerson
4, rue Pasquier
Paris 8, France

—Rome
7th International Congress of Blood Transfusion
Col. Med. Julliard
57 Blvd. d' Auteuil
Boulogne/Seine, France

—Brussels
General Assembly of the International Organization Against Trachoma (I.O.A.T.)
Dr. Jean Sedan
94, rue Sylvabelle
Marseilles VI, France

—Barcelona
International Congress of Psychotherapy
Dr. Mariano de la Cruz
Clinica Psiquiatrica Universitaria
Fac. de Medicina
Barcelona, Spain

—Montpellier, France
16th International Congress of History of Medicine
Dr. F. A. Sondervorst
124 Avenue des Allies
Louvain, Belgium

OCTOBER

19-26—Paris
3rd International Congress on Allergology
Dr. B. N. Halpern
197, boulevard St. Germain
Paris, 16, France

22-30—Madrid
21st International Congress of Medical Hydrology
Dr. Francon
55, rue des Mathurins
Paris 8, France

24-25—London
Physiological Society—Meeting
Dr. J. A. B. Gray
Physiology Department
University College
Gower Street
London, W.C.1, England

—Munich
8th International Congress of Comparative Pathology
Dr. Louis Grollet
7, rue Gustave Nadaud
Paris 16, France

NOVEMBER

2-7—Lima
6th Pan American Congress of Radiology
Dr. Vincente Ubillus
530 avenue Saena Pena
Callao, Perú

28-December 6—Tokyo
9th International Conference on Social Work
Mr. J. R. Hoffer
345 East 46th Street
New York 17, New York

DECEMBER

2-5—Minneapolis
American Medical Association—Clinical Meeting
Dr. George Lull
535 North Dearborn Street
Chicago 10, Illinois

5-6—London
Physiological Society
Dr. J. A. B. Gray
Physiology Department
University College
Gower Street
London, W.C.1, England

8-14—New Delhi
7th International Leprosy Congress
Dr. E. Muir
British Leprosy Relief Association
8 Portman Street
London, W.1, England

New Committee On Insurance

Dr. Gallivan, Chairman of the Council, has appointed the new Committee on Insurance as authorized by the Council on October 31, 1957, as follows:

Chairman: M. David Deren, Bridgeport; Norman J. Barker, Bloomfield; Willard J. Buckley, Middletown; Phillip Cornwell, Hartford; E. Roland Hill, Mystic; and Robert H. Jordan, New Haven.

This Committee will receive, consider and make recommendations concerning all group proposals of insurance for members of the Society.

Physicians Applying For Government Loans

The Small Business Administration is receiving an increasing number of loan applications from physicians and dentists seeking financial help to establish themselves in practice or extend their facilities. Physicians, dentists and other professionals were added to the list of persons eligible for such loans several months ago and if such professionals are unable to obtain personal loans through the usual channels they may apply to the Small Business Administration for such assistance.

Details, application forms, etc., may be obtained from the Small Business Administration regional offices, 42 Broadway, New York City and 131 State Street, Boston, Mass.

Meetings Held in December

December	3	American Medical Education Foundation Committee
	4	Connecticut Health League
	5	Committee on Public Health
	9	Committee on Eye Care
	17	Advisory Committee to the Commissioners of Welfare, Finance and Control
	19	Executive Committee, Board of Directors, Connecticut Medical Service
	25	MERRY CHRISTMAS!

OUR NEIGHBORS

Maine

The Journal of the Maine Medical Association for November, 1957 is devoted almost entirely to papers contributed by members of the faculty of Dartmouth Medical School and of the medical and surgical staff of the Mary Hitchcock Memorial Hospital, Hanover, N. H. A guest editorial is contributed by John P. Bowler, chairman of the policy committee, Dartmouth Medical School. This is an excellent issue covering varied fields of medicine. The editor is to be complimented on such a splendid product.

Massachusetts

Massachusetts now has a law on the books which requires every ambulance to carry an attendant trained in first-aid. Either the driver or another person in the ambulance must hold an "active certificate" showing that he has taken the Red Cross advance first-aid course or its equivalent. The new law also requires that ambulances observe existing speed and traffic regulations.

PREVENTION OF EYE INJURIES IN CONNECTICUT INDUSTRIES

EUGENE M. BLAKE, M.D., *New Haven*

The Author. *Vice President and Medical Director, Connecticut Chapter, National Society for the Prevention of Blindness*

The Connecticut Chapter of the National Society for the Prevention of Blindness is vitally interested, among other measures, in the avoidance of injuries to the eyes in occupations where such danger exists. In order to determine, so far as possible, the extent to which employees of the heavier industries in Connecticut are protected from accidental eye injury, the Medical Advisors of the State Chapter sent out letters to manufacturers requesting certain information.

The questions asked were:

(1) How many employees in the company are exposed to flying chips of metal, wood, etc., or to chemical splashes, welding sparks, etc.?

(2) Are protective lenses worn at such work?

(3) Who pays for the protective lenses, the company or the employee?

The employers were assured that the questions asked were not an attempt to investigate their particular firm but was an effort to learn how protection was generally afforded to the workers.

The response to the letters was very satisfactory—the letters from the management showing that the interest of the Society in the welfare of their employees was appreciated and were often accompanied by valuable comments. Several hundred letters were sent out and 238 firms replied. These firms represented 51,318 employees.

As was expected, some companies replied that none of their employees were exposed to the danger of eye injuries. In some instances the replies were inconclusive, stating that the men wore glasses only when especially needed, etc.

Of the 238 replies received it was seen that of the 51,318 workers 14,078 were equipped with protective lenses. This is a surprisingly good showing as some industries employ a large number of workers only a few of whom may be exposed to the danger of eye injury. It, therefore, seems justifiable to conclude that comparatively few workers in Connecticut are exposed to the hazard of eye accidents without protective glasses. In answer to the question "who pays for the glasses?" there is an almost complete willingness of industry to pay for the equipment required. In a few instances the companies paid for half the cost of lenses and the employees the other half. In only one firm were the workers required to pay the entire cost.

Some of the comments of the company head or the safety engineers were especially valuable. For instance one letter stated as follows: "Protective glasses are not required. Some employees are advised by our medical consultant to wear them. The company, however, is considering making them a requirement as some laboratory workers have splashed chemicals in their eyes." Let us hope that the lenses are supplied before an eye is destroyed!

Another comment was as follows: "The company pays for the glasses. At the outset of the program there was some resistance to wearing safety glasses but in the end they have been more than accepted. The company has found that the reduction of eye injuries is down from 8.2 per cent to 1.4 per cent."

One large firm has a most interesting and valuable system of awards and demerits. The workers are formed into teams and $500 is set aside each quarter for rewards for successful response. The contest covers such matters as violation of safety rules, absence, tardiness, failure to wear safety shoes, gloves, helmets, glasses and other equipment. The program works out very well and induces a healthy rivalry among the teams.

What was once a common occurrence is typified by the response of one firm which stated that, "Almost all of our men in the shop are at one time or another exposed to flying particles of either metal or emery. Sorry to say that we encounter resistance from the men and the literature we have posted does not seem to take much effect." In such in-

(Continued on page 42)

THE HISTORIAN'S NOTE BOOK

THREE MEN AND A HOSPITAL

A Chapter in American Obstetrics

HERBERT THOMS, M.D., *New Haven*

The Author. *Emeritus Professor of Obstetrics and Gynecology, Yale University School of Medicine, New Haven, Connecticut*

On September 29, 1832 there appeared in the Boston *Christian Register,* a journal of "Unitarian Christianity, Sound Morals, Literature and News," this announcement—

> The Boston Lying-in Hospital. This institution we learn is completely organized, and is ready for the reception of patients. An estate has been purchased, situated in the southerly part of this city, at 718 Washington Street, embracing a house well adapted to its present purpose, and a spacious lot of land which will admit an extension of its buildings, whenever it shall become necessary. No patient will be recommended for admission unless a married woman or one recently widowed, and known to be of good moral character.

This was an enterprise made possible by the subscription of $10,000, half of which was given by the Massachusetts Humane Society and an equal amount by the Massachusetts Charitable Fire Society. Just why an organization devoted to supplying financial aid to those in want as a result of fire should have an interest in women in childbirth is explained by Frederick C. Irving in his book *Safe Deliverance.* Over the years the Fire Society had accumulated some $25,000 but demands upon it for its primary purpose had greatly lessened owing to the establishment of commercial insurance and of fire fighting companies. At an annual dinner held May 29, 1832, inspired by Dr. Walter Channing, professor of obstetrics at Harvard, the Society voted to petition the legislature for permission to spend the Society's funds for other purposes, and as has been said, "The Boston Lying-in Hospital was born that night."

Following the formation of a board of trustees a house at 718 Washington Street was purchased. Two attending physicians were appointed, Enoch Hale Jr., a local practitioner, and Walter Channing. Later on Hale was replaced by Charles G. Putnam and when Channing withdrew in 1838 his place was taken by David Humphreys Storer, later to succeed him also in the chair at the Harvard Medical School.

From the time of the opening of the hospital to its closing in 1856 it housed 650 births, not many for the twenty-four years of its existence but the beginning had been made and, still more important, a lasting organization had been formed. Storer also succeeded Channing as the leading Boston obstetrician. Storer was a down-easter, born in Portland, Maine in 1804. After graduating from Bowdoin College he came to the Harvard Medical School, receiving his M.D. degree in 1825. Later as professor of obstetrics at the Tremont Medical School he pioneered in the use of the mannikin for teaching and also in arranging for students to attend women in labor. Storer along with Jacob Bigelow, Edward Reynolds and O. W. Holmes founded this school in 1838 in order to give instruction to students at periods when the Harvard Medical School was not in session. It was not long before the enthusiasm and vigor of its faculty gave the school an enviable reputation; so much so, that Harvard felt the necessity of adding three of its teachers to its own faculty. First Bigelow, then Holmes, and later Storer who, as I have stated, succeeded Channing as professor of midwifery and medical jurisprudence.

At the newly vamped Harvard Medical School Storer was the most effective teacher, using many of his teaching practices at the Tremont School among which was an arrangement to pay practicing physicians or the Boston Dispensary two dollars for every maternity case turned over to the students. Storer's greatest contribution at Harvard was the inspiration he gave the students. Holmes said that no one in his time did so much to make them love their Alma Mater.

David Humphreys Storer was eminent not only in medicine but in natural science. His *History of the Fishes of Massachusetts* published in 1867 remains a classic. As a physician he is to be remembered as one-time president of the American Medical Association, Dean of the Harvard Medical School, and a founder of the American Gynecological Society.

Horatio Robinson Storer was Humphreys Storer's son and, although his connection with the Lying-in Hospital was not for long, he was an important part of the general picture in the Boston of his day. He was born there in 1830, graduated from Harvard College in 1850 and then studied medicine at the Tremont Medical School where his father was still teaching obstetrics. He later studied at Harvard, taking his M.D. degree in 1853. He continued his medical training abroad in Paris, London and Edinburgh. For about two years he was assistant to James Y. Simpson, professor of midwifery at Edinburgh and the discoverer of chloroform. He returned to Boston in 1855 with something of a reputation and a considerable number of ideas. He at once became one of the attending physicians at the Lying-in Hospital and when that closed in 1856 it was not long before he became affiliated with the New England Hospital for Women.

In 1862 Horatio Storer announced his intention to specialize in women's diseases which raised eyebrows in important medical circles. However, this does not adequately tell what happened when he expressed his preference for chloroform over ether as an anesthetic. This was followed up by a monograph entitled, *Eutokia: A Word to Physicians and Women upon the Employment of Anaesthetics in Childbirth.* This was dedicated to N. C. Keep, Walter Channing and J. Y. Simpson, giving credit to these pioneers and at the same time coming out strongly for chloroform. This heresy was too much for the Boston higher-ups, especially when he resented their criticism. In 1866 he was removed from his modest position at the Harvard Medical School, ending his connection there permanently. Apparently this did not dampen his spirits for he was then nearing the height of his career. Shortly afterward he performed a notable and historic surgical operation. This was the removal of the uterus at cesarean section; eight years before Porro of Milan published his monograph. Sensing his impending dismissal at Harvard he accepted an appointment at Berkshire Medical College in Pittsfield. In order to be able to fulfill the full duties of his assignment in obstetrics and medical jurisprudence he studied law at Harvard, getting a degree there in 1867. His postgraduate courses which were being given meantime make him the first teacher in this country of gynecology as a separate subject. These lectures were greatly popular and attracted physicians from a wide range in the United States and Canada.

Another first for Horatio Storer was the use of rubber gloves in the operating room. Unfortunately for him he abandoned the idea and soon after almost lost his life from pyemia from an infected finger acquired at operation. In 1872 he went to Italy in search of health, returning five years later to Newport, Rhode Island. There he became once more a controversial figure by insisting on cleaning up the town, sanitariwise. Eventually his fellow townsmen came around to his way of thinking and on his 90th birthday presented him with a loving cup. Horatio Storer kept things stirred up wherever he was which was probably a benefit all around.

The circumstances which caused the Lying-in Hospital on Washington Street to close its doors had their beginning in 1851. The year before the hospital had held assets amounting to almost $46,000, the income exceeding the expense of its 39 patients by over $1400. Inspired by this apparent state of affairs, the trustees decided to build a more modern institution to be supported in part by patients' fees. A lot was bought from the city for $16,000 and after following an all too familiar pattern of building costs and the borrowing of money the final cost was somewhere near $60,000. The new hospital proved to be the proverbial white elephant and the trustees were glad finally to sell the property back to the City of Boston for $45,000.

After the winding up of this affair, seventeen years elapsed before the Lying-in Hospital started up again. Great credit must be given to the trustees for keeping the organization alive and maintaining the activity of its funds. By 1871 the holdings had reached $98,000, the Washington Street property also having been sold. The funds had not been idle however, for donations had been given from time to time for the support of obstetrical cases and over a ten year period $6,700 had been given to the

Women's Hospital and $7,500 spent in assistance to indigent women who were delivered at home.

In July, 1871 the trustees discussed the possibility of establishing a small lying-in hospital and two months later recommended the purchase of a house at 24 McLean Street not far from the Massachusetts General Hospital. This was done and on January first the hospital was opened, the first patient being delivered January 12, 1872. One of the attending physicians was young William Lambert Richardson, then 30 years old. In 1889 he was elected physician-in-chief, a position he retained until 1907. Today he is "firmly enshrined at the Boston Lying-in Hospital as its patron saint," according to Frederick C. Irving who subsequently followed in his professional footsteps there.

William Lambert Richardson was born in Boston in 1842 the son of Jeffrey Richardson, banker and man of affairs. He attended Boston Latin School, later Harvard College, graduating in 1864. He received his M.D. from Harvard Medical School in 1867 after serving for a year as house pupil at the Massachusetts General Hospital. He spent the next two years in study and travel in Europe, first in Dublin where he received from the Rotunda Lying-in Hospital the degree of L.M. and a special diploma for excellence in obstetrics. From there he went to Berlin and Vienna, returning to Boston in 1869. He soon was appointed to the staffs of the Massachusetts General Hospital, the Children's Hospital and the Boston Dispensary. Having been trained medically for the most part, he combined obstetrics with internal medicine, practicing both all of his professional life. He possessed not only superior diagnostic skill but also manual dexterity, fine qualifications for a successful obstetrician.

Richardson was appointed instructor in obstetrics at the Harvard Medical School in 1871, assistant professor in 1882 and professor in 1886. Like his predecessors Channing and Storer he served as Dean of the medical school and in 1899 when the medical, dental and veterinary schools were placed under one head he became dean of the combined faculty.

Among achievements to Richardson's credit was the establishment of an out-patient department in 1880 for the home care of women in childbirth. From meager beginnings this expanded to over two thousand deliveries in 1907, the year of his retirement. The admission of students to the Lying-in Hospital wards in 1883 was the beginning of the first teaching obstetrical clinic in New England. Added to these was his organization of a training school for nurses. All of these contributions are important because of their permanence in our obstetrical structure today. His only published book is a small one on the duties of nurses in private nursing published in 1886 and widely read in its time.

Richardson's fame will always be secure, says Irving, "because he resuscitated the dormant hospital, transfused with the vital fluid of his own optimism, and nursed it carefully until it could stand squarely on its own feet." According to David Cheever he "made this hospital one of the great institutions of its kind in the world."

William L. Richardson became famous as one of the outstanding medical teachers of his period, his forceful and dramatic exposition at times seeming to reflect his undergraduate days as a star in Hasty Pudding plays. However, it takes more than these accomplishments to qualify for medical sainthood. His elevation to this realm came through deep and unselfish devotion to the institution he so greatly served and loved. To this he had much to give for added to his superior personal endowments was his considerable share of this world's goods. He not only gave the hospital of his own substance but persuaded many of his friends to give of theirs. For the purchase of the land on which the present hospital stands he gave half of the ninety thousand dollars needed. At his death in 1932 the bulk of his fortune was left to eventually come to the Hospital and Medical School.

Characteristically, Irving describes Richardson as "a slight man of no more than medium height, with a high and prominent forehead, a long and slightly concave nose, and a mustache of the pseudo-handlebar or quasi-walrus type. He had lost his left eye from an infection acquired in his early days when attending a septic case. (The same disaster had befallen the nurse who had assisted him.) In its place he wore a glass substitute, which, fixed unwinkingly upon a delinquent student, would fill the young man with foreboding; and even after the culprit had departed its presentiment would persue him during his waking and sleeping hours. . . . His patients both in hospital and private practice adored him. Devoid of good looks, great charm of manner, or any of the accepted equipment for enchantment, he could influence women with no effort at all, probably because he inspired them to trust him." His life-long friend William D. Schier speaks of his "never-give-up attitude that radiated from his verile, electrical, magnetic personality. Swift and accurate in observation and judgement, he possessed unerring sagacity; though he was laconic and abrupt and often seemed brusque and austere, he had an underlying kindness that was soon evident. A man with multiple interests and an immense capacity for work, he seems to have been able to recreate or enliven any project which he undertook."

Emerson tells us that an institution is but the lengthened shadow of one man. For the Boston Lying-in Hospital this man was William L. Richardson, foreshadowed by Walter Channing and David Humphreys Storer.

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Prevention of Eye Injuries

(Continued from page 38)

stances more drastic measures must be taken for it is obviously unfair for the firm to supply and urge the use of protective equipment and yet to be held liable for the care of injuries received through lack of cooperation.

Along a somewhat similar line of thought is the statement, "we entreat all of our employees to use safety glasses but do not require them." Again, "workmen are instructed to wear glasses but they do not always do so."

The matter of failure of workers to conform to the rules laid down in the use of protective appliances is a serious problem. It is true that glasses sometimes steam up and are troublesome but proper adjustment of the frame will usually remedy this defect. Failure to wear glasses may result in pain, loss of sight or even blindness.

The value of the precious gift of sight cannot be estimated but the cost of the loss of an eye may be as much as $10,000. This goodly sum does not, unfortunately, restore the lost sight.

Individuals with one defective eye or with only one eye should wear shatter-proof lenses at all times for one never knows when an accident may occur. It would be most helpful if all people, laymen as well as physicians, would act as ambassadors of safety. To one interested in the problem of prevention, the opportunities to speak up for protection are almost unnumbered.

Go into almost any garage and watch men working underneath cars—hammering here, tightening nuts there, with no protective glasses. Or even worse, observe men changing tires using great heavy hammers against the steel rim where chips of metal may so easily fly off. Thousands of road workers are swinging pick axes against stone, drilling rock formations or loading soil, stone or cement, all giving ample opportunity for flying particles to enter the eye. Many other instances can be enumerated of the failure to prevent injury to the eye.

This survey of the industries in Connecticut is related to that work of the National Society for the Prevention of Blindness called the Wise Owl Clubs. Several years ago the American Car and Foundry Company installed a suggestion box in the factory requesting workers to present suggestions for improvement of work and safety. One of the workers suggested that when a man prevented injury to his eyes by wearing protective glasses, some recognition be taken of the event. The idea appealed to the company and the plan was put into effect. When a worker is struck by a foreign substance which would have injured the eye but for the glasses, notice is made of the fact. The foreman calls a meeting of the men in the department and a short speech is made. The worker who protected his vision was given a certificate showing his membership in the Wise Owl Club and a small gold owl lapel button is presented. This program worked so successfully that it was offered to the National Society for the Prevention of Blindness. During the past few years over 13,000 men and a few women have received this award and that many people have saved one or both eyes.

The Connecticut Chapter expresses its thanks to its Medical Advisors in connection with this survey of industry and in collecting data to give a fairly accurate picture of the use or nonuse of protective appliances for the safety of our workers.

INSURANCE AND THE PHYSICIAN

THE PHYSICIAN AND VOLUNTARY HEALTH INSURANCE

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SUMMARY

This paper traces the progress of voluntary health insurance in making coverage generally available to all segments of the population, and points up the evolving need for more comprehensive forms of insurance protection. It describes the underlying characteristics of one of the newer forms of such comprehensive insurance, namely, major medical, and points up the responsibilities of the medical care profession in relation to it. In conclusion it advances a suggestion that a joint insurance industry-medical society liaison be established to provide a forum for an exchange of information on health insurance and related medical practices.

Voluntary health insurance is emerging from an era of growth which has rapidly narrowed the gap between the number of individuals owning some form of health insurance and the total insurable population in the United States. At the end of 1956, 116 million people were insured against the expense of hospital care with 101 million also owning coverage providing reimbursement for surgeon's fees. The total population, at that time, was estimated to be 169 million. In order to measure the impact of the various voluntary health insurance agencies in marketing their products and the size of the task still confronting them in this area, the total population figure must be interpreted in terms of those who are potentially insurable. Thus, the overall figure must immediately be reduced by 11 million reflecting population groups (public assistance recipients, military personnel and their dependents, beneficiaries of the Public Health Service, Indians and Alaskan natives) who have the major portion of their medical care costs directly financed by government.

In addition, there are individuals who may be eligible for some free care stemming from their veteran status who rely on this entitlement in placing a lower priority on the purchase of health insurance through their own initiative. This voluntarily uninsured group is also comprised of those who elect and are able to finance such care from their own financial resources. While this segment of the population is difficult to measure precisely, since it is determined by motivation, spending habits and other personal characteristics, it nevertheless must be borne in mind in pursuing this evaluation.

As you know, some of the people in the first classification are now covered by health insurance. It seems reasonable to assume, however, that these people would be balanced by those in the second category, the voluntarily uninsured group.

In retrospect, we note the achievements to date; the continued progress made by voluntary health insurance agencies in moving toward the goal of making health insurance generally available; the relatively recent entrance of more insurance companies into the health insurance field bringing increased facilities to the public; the continued development of marketing techniques making the economies of group insurance available to more people and the current vigorous experimentation by individual companies in making coverage available to physically impaired risks and our senior citizens. All of these factors serve to strengthen an optimistic opinion that this phase of the problem is largely behind us.

This era has been generally characterized by coverages designed to meet the expenses of defined hospital and medical services (e.g., in patient hos-

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pital care, surgeon's fees, doctor's visits, diagnostic x-ray and laboratory procedures) with specific dollar limits for each. Most of the health insurance presently in force follows this basic pattern, demonstrating that it is unquestionably filling an important insurance need for the public.

We have also experienced during this period, dramatic changes in the provision of medical care involving technological changes in hospital facilities, new medical and surgical techniques and the development and use of expensive drugs. All of which we gratefully acknowledge have raised our standards of the quantity and quality of good medical care to the highest level. This development has pointedly brought to the fore the need for health insurance coverages to go beyond the scope of basic coverages to provide the public with a mechanism for financing the major portion of the cost of such improved care.

This need has evolved as the other major objective of voluntary health insurance. Any evaluation of the extent to which we are now filling this need must start with the answer to the question of "How much of the family's medical bill is it economically practical to insure?" You will find that opinions answering this question vary considerably not only among insurance agencies themselves, but also among purchasers of health insurance. This variety is good since it assures the public of a wide choice of alternatives and argues for the soundness of the pattern that will ultimately emerge.

In seeking the answer to this question, the insurance industry has selected an experimental coverage pattern termed "Major Medical" which is constructed with liberal but sound insurance principles intended to give the public the most insurance protection for its premium dollar. This is an ambitious objective and one which cannot be achieved without the full understanding and cooperation of the medical profession.

While of relatively recent origin, this newest form of health insurance has nevertheless already achieved a high degree of public acceptance as evidenced by the fact that 9 million were covered by this form of insurance at the end of 1956. Its appeal from the public's standpoint lies in its flexibility in covering a broad range of medical services and in its high dollar limits which enable the insurance to absorb most of the financial impact of severe illness.

First, let me briefly sketch out the coverage pattern of major medical and its principal characteristics. Then let us explore the relationship of the medical profession to it.

Both the experimental nature of major medical and its adaptability to the needs of specific employers and employees have produced variations in the basic characteristics of the coverage, such as the charges covered, ineligible expenses, deductibles and coinsurance, and other features which are too numerous to cover in the brief time allotted to me. There are many excellent papers presented in insurance circles, however, which fully cover these points and I have listed a few in the source material appended to this paper, for reference purposes.

Major medical coverages may be used from the buyer's standpoint as either a supplement to base hospital or surgical expense plans or as a replacement for the base plan.

CHARGES COVERED

The usual form of major medical coverage provides benefits for the following expenses when prescribed by a legally qualified physician for treatment in or outside the hospital:

(a) Physician or surgeon charges.
(b) Hospital charges.
(c) Charges made by a registered nurse.
(d) Customary charges for the following services and supplies: drugs, medicines, anesthetics, x-ray, artificial limbs, etc.

In addition to the above, normal maternity and delivery expenses may be optionally included.

INELIGIBLE EXPENSES

The following listing typifies some of the expenses which are normally ineligible for major medical coverage:

(1) Expenses for occupational injury or sickness covered by Workmen's Compensation.
(2) Expense for eye refractions or fitting of glasses, or hearing aids, or for dental x-rays, or other dental care and treatment.
(3) Charges for routine "check-up" examinations.
(4) Room and board, and general duty nursing charges for private room hos-

pital accomodations in excess of a daily dollar limit (e.g., $20.00).

(5) Charges incurred in any government hospital.

THE DEDUCTIBLE

The insured must pay the initial cost of covered medical expenses up to a specified amount before reimbursement under the major medical plan commences. This is called the deductible. Major medical policies generally provide that in the case of a common accident affecting more than one insured person, the deductible shall apply only once to the combined expenses of those injured in the accident. The deductible amount may be as low as $25.00 or $50.00, where the major medical is to replace a base plan, or a variable higher amount, where the coverage is tailored to supplement a base plan.

The deductible eliminate the smaller more frequent claims that are relatively expensive to handle administratively and which, although they represent so large an element of cost in the aggregate, can be readily budgeted by the insured. It is possible in this way for the premiums to remain at an attractive level and for the insurance dollar to be used to best advantage for the coverage of the larger expenses that can be such a hardship to the individual.

The premium savings available from the use of the deductible is illustrated by the following cost figures for a hypothetical Group Major Medical Plan, with no underlying base plan, written on a group of employees for whom the age, sex, salary and other cost factors are average.

For each insured individual, the plan pays 80 per cent of all covered medical care charges in excess of a deductible of $50.00 up to a maximum payment of $10,000.

The monthly premium for this program for an employee and his dependents would be about $12.00. If the deductible is $25.00 instead of $50.00, the cost increase by about 33 1/3 per cent; if the deductible is $100.00 the cost decreases by about 20 per cent.

COINSURANCE

Major Medical Coverage reimburses for 75 per cent or 80 per cent of the expenses above the deductible up to a maximum limit, the insured employee sharing in the payment to the extent of 20 per cent or 25 per cent. This is termed coinsurance. It is based on the sound premise that a financial incentive for the insured to be concerned over the price, kind and volume of the medical services rendered is essential if premium costs are to remain at reasonable levels.

COST FACTORS

Experts in the group insurance field feel that it is still too early to tell what the final premium rate structure for major medical will be. However, after seven years of operation, the following four conclusions are still generally recognized as the mainstay of scientific rate making for major medical:

(1) Cost varies directly with income.

(2) Cost increases with age in pretty much the same way as the mortality curve does.

(3) Cost varies with geographical area.

(4) There is a "1-2-3" cost relationship as between members of a family. Thus, if we consider the claim cost for all an employee's dependent children as one, the employee's own claim cost may be represented approximately by two, and that of his wife by three.

The ultimate premium rate structure is further complicated by the fact that major medical plans, particularly those with low deductibles, will by their comprehensive scope be sensitive to increasing hospital costs which are expected to increase at about five per cent annually for many years.

The need for comprehensive health insurance protection is well established. Major Medical is one of several alternatives available to the public. The fact that major medical recognizes that primary responsibility for the quality of care rests with the providers of service and otherwise supports your principles of the free practice of medicine establishes a relationship between the success of major medical and your own self interest. If you accept this analogy and the economic fact that survival of the major medical approach will be determined by its ultimate cost to the public, then the physician's relationship to that cost evolves as a prime consideration to you.

I have previously pointed out that the deductible and coinsurance principles in major medical estab-

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lish financial incentives for the insured, which, if they are effective, will enable cost to remain at a reasonable level. However, in order for them to be effective, there must be complete understanding and support among members of the medical profession for these principles. Furthermore, it must be recognized that beyond this point the practicing physician or surgeon has primary responsibility in controlling the quantity of medical services and establishing the fee for his services. To this extent, then, he directly oversees this part of the premium cost to the public. There is no intent to interfere in the normal patient-physician relationship as it affects this quantity and cost of service, however, it is vitally important that both considerations be resolved on criteria other than the existence or amount of insurance.

This fundamental axiom is readily understandable if we examine a hypothetical case in which the existence of insurance is the only variable in an otherwise parallel set of circumstances.

Mr. A. and Mr. B. are at similar economic levels. They use the same services of the same physician for like illnesses. Mr. A. owns health insurance, Mr. B. does not. If Mr. A. is charged a higher fee solely due to the presence of insurance, the resulting higher charge for the insured class as a whole would ultimately argue against that form of insurance and for some other alternative which would exercise more control over the fee charged.

This situation is obviously an oversimplification of the problem. It is used merely to illustrate the direct relationship between physician's fees and insurance costs and why it is important that the physician establish his fee as if there were no health insurance in existence. It is the kind of measurement of the effectiveness of different kinds of voluntary health insurance which is being used with increasing frequency by an informed public.

There is an important underlying difference between major medical and the basic forms of hospital and medical coverages which its critics contend will in the long run serve to inflate the cost of medical care and ultimately price this form of coverage out of the market. This is due to the fact that major medical relies on financial incentives such as deductibles and coinsurance factors and the medical profession's enlightened self interest rather than the built in controls which stem from the lower dollar limits and narrower scope of insured services under the so called "basic" forms of protection.

It would be naive to brush off this latent potential for it is indeed an area of vulnerability. The integrity of the medical profession makes me confident that it will not become a reality. However, we must respond to this challenge together, with intelligence, a full recognition of our relative responsibilities, and a willingness to deal with them forthrightly.

The insurance aspect of financing medical care from an overall viewpoint must present a very complicated picture to the practicing physician due to the variations in coverage and the rapidly changing picture. A thorough understanding of different philosophies motivating different approaches is understandably difficult to achieve in today's climate with the numerous other demands on a physician's time. However, the increasingly high percentage of physician services which are financed through such insurance arrangements (insurance companies alone paid $465,000,000 in 1956 in reimbursement for physician's services) and our joint responsibility to make them work most economically and effectively for the insured public indicate the desirability of developing a cooperative basis for facilitating and accelerating this understanding. To bring this about we might explore the possibility of establishing an insurance advisory committee within your medical society to meet jointly at periodic intervals with a similar group representative of the insurance industry. These meetings would serve as a forum for an exchange of information on health insurance and medical practices related thereto and provide a permanent liaison between both parties.

This would be the base on which we would build a better understanding of each other's problems and a cooperative climate for achieving their solution.

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Special Article

FINANCIAL PLANNING FOR THE PHYSICIAN

The second of two articles on estate planning for the physician

NORMAN F. DACEY, *Bridgeport*

In his first article, Mr. Dacey dealt mostly with various aspects of life insurance. He concluded by saying, "The whole purpose of this careful planning of your insurance is to free as much of your funds as possible to be employed productively somewhere else. Don't defeat your program by not putting aside what you saved on your premiums." He now presents in this second part of his article, his views on building a cash estate.

The Author. *Head of Norman F. Dacey and Associates, Financial Consultants and Trustees*

AND now for the other part of the job—building your cash estate, the one you are going to retire on some day. The ideal medium would be, of course, one which would afford complete safety of the money you'll be saving, plus good productivity (interest or dividend) and plus some prospects of capital appreciation. But these three ingredients seldom come in the same package.

So far as productivity is concerned . . . I am sure that we are agreed that no one ever built a fortune by lending money at modest interest rates, whether to an insurance company, a savings bank, a building and loan, on a mortgage or in government savings bonds. The great fortunes of this country were not built that way. Government savings bonds are offered as "the safest investment in the world," despite the fact that not a single purchaser of the bonds over the past 17½ years has ever gotten out with a profit in terms of the real value of the money, its purchasing power. Such bonds make a fine depository for emergency funds. Let's just stop calling them a "good investment" or "the safest investment in the world" because they are neither of these things.

After twenty-seven years spent taking care of other people's money, I've concluded that one of the safest places you can have your money is in the trust department of a bank. Granted that there have been instances of poor judgment by small-town banks and neglect by big, competent ones. By and large, trusteeship has had a magnificent record and it has been chiefly responsible for the perpetuation of the large estates in this country. You'll notice that whenever anyone dies and leaves ten or twenty-five million dollars, it's always in "trust" with a bank. It has come to be the accepted way by which large estates are passed on.

Mechanically, a trust account is just the opposite of a savings account. In the savings department you turn your money over to the bank and they give you a small fee for the use of it, the interest. They put it to work and they keep the profits. They don't tell you how they put it to work or how much they make—or divide any of the profits with you. In the trust department you turn your money over to the bank, give them a small fee for putting it to work, and they must turn all the profits over to you and account strictly for them. In the first instance the bank gets the cream and you get the skim milk; in the second, you get the cream and the bank gets the skim milk. People with a lot of money have always insisted that they get the cream. And in the hundred-and-seventy odd years since The First Pennsylvania Banking and Trust Company was organized in Philadelphia as the first American trust company there is no record of a dollar of trust funds being lost because of any banking failure or dishonesty of a bank's officers. Here is an ideal place for your funds, then. Through a "living trust" or custodian account, they will be handled honestly and you will be relieved of all bookkeeping details.

It is equally important, however, that the money be put to work efficiently. If the people who manage it are honest and bungle the job of putting it to work, you're just as badly off as if they were dishonest.

I've mentioned that there have been instances of poor judgment on the part of banks which had too little trust business to warrant the employment of the sort of men who were needed to put the money to work efficiently. On the other hand, some of the biggest banks in the country, whose competence is beyond question, have sometimes had so many trust accounts that they couldn't watch them all often enough. It might be well for you then to hire investment managers, independent of the bank, whom you are positive have the ability and the time to manage your money. There are many fine investment counsel firms. It's hard to know which are the good ones though, because their accounts are all private and if you ask to look at a sample, even the poorest of them can generally produce a couple of accounts which look awfully good. If you go to one with a splendid reputation, they are likely to have many accounts, some of them very large, with whom you must compete for the attention of the managers. Even if you go to one which pools smaller accounts in a "common fund," you'll find that there are still some minimum fees, some minimum balances, and some objections to receiving relatively small monthly amounts of new money to be invested.

And that brings us to the mutual investment funds. It is a fact that some of the greatest investment brains in the country are gravitating toward the mutual funds. Like doctors, there are lots of good funds and a few poor ones. Their stated objectives vary widely—some are extremely conservative, some are frankly speculative.

Should we assume that before you think about making more money, you want to be sure that you don't lose what you already have? If this is so, then it is my opinion that it is hard to be too conservative when it comes to buying a mutual fund. Since the financial planning you are embarking on is a serious business—which will probably take years to be completed—you should definitely lean to the conservative side.

Does this mean that you are going to be so conservative that you'll sacrifice return? Not necessarily. It's the old story of the hare and the tortoise. The common-stock hares look awfully good in the bull market years but you'll be surprised how frequently the conservative balanced-fund tortoises end up on top.

There are common stock mutual funds which have consistently good records. If you are quite willing to have your investment fluctuate widely and are quite sure that you will never need to liquidate your shares because you need the money when security prices are down, feel free to use one of these common stock funds. Just understand that you have not reduced your risk to its minimum. We are not talking here about taking a flyer in some special situation and on a restricted scale, we are talking here about your basic estate plan, the one to which you and your family look for security. The Carnegie, Ford, and Rockefeller Foundations and the great university endowment funds all agree that BALANCE is the most essential consideration when it comes to investing. The long-term trend is inflationary but there are bound to be interruptions in that upward progress. You may need to call upon your funds during one of those interruptions. A few Chinese crossing the Straits of Formosa or an eruption of Arab-Israel fighting in the Middle East may suddenly shift your whole investment emphasis toward defensive securities. If these do not happen, inflation may melt away the real value of our estates and require a completely different policy. We don't know from day to day the direction from which the immediate attack upon our security may come. Under these circumstances, play it safe.

A troop commander, defending a position against a potential attack but not knowing the exact direction from which it will come, may shift the main weight of his own forces from side to side as he attempts to anticipate the enemy's potential moves but he nevertheless maintains his defenses around his entire perimeter. Some of his forces may thus be wasted but he cannot afford to gamble that he will guess correctly the exact direction from which the attack will materialize. Nor can you afford to hazard your security on your ability to guess right what lies ahead. You, too, must guard the entire perimeter of your security against attack from whatever direction. Balance is the answer—bonds *and* preferred stocks *and* common stocks in varying proportions.

Inasmuch as it's generally not advantageous to go from one fund to the other—on account of the initial acquisition charges—great care should be exercised in the original selection of the mutual fund you want because you expect to stay with it for a long time. Look hard at its record over a long period of years. Remember that good managements tend to be consistently good and poor managements consistently poor.

You have put your money into the custodian account at the bank then, and you have directed the bank to invest it in the mutual fund of your choice, with all distributions to be reinvested. With some inquiry you can find a bank that will let you add sums of $50, $100, $500 or more monthly or quarterly to be similarly invested. Now you've put to work what you have accumulated to date and you have made provision for the prompt and efficient employment of the relatively small sums you hope to save in the future. Some banks will even send you a reminder notice when a deposit is due.

In this connection, investigate the several excellent systematic-type investment plans available which allow you to accumulate mutual fund shares and which include optional life insurance at really bargain rates. One such plan even includes a disability provision which will make the monthly investment for you if you become disabled. These plans are particularly helpful in that they permit you to name a beneficiary to receive the shares at your death. Under such an arrangement you don't need to register the mutual fund shares you own in the bank's name during your lifetime, just name the bank as beneficiary. You haven't given them any work to do during your lifetime, so their fee doesn't begin until your death.

Finally, make all of your life insurance policies payable to the bank as trustee. At your death the bank collects the proceeds of your insurance and deposits them in the same mutual fund. Thereafter, they collect and distribute the income and eventually distribute the principal in accordance with your instructions. If you and your wife die in a common accident, you'll have a competent trustee and investment managers watching over your estate for your children, instead of a well meaning relative who may be too busy, away, sick, or die, or who may be downright incompetent.

Your revocable "living trust" will not be subject to the delay, expense and publicity of probating. If ever you need money, you may either borrow against the trust or make a partial withdrawal of whatever you require. Your heirs will not inherit cash which may be spent or stocks and bonds which must be continually managed, but will inherit a trust which will continue to be managed and administered for them as it was for you while you were here to judge the quality of the job being done.

If you have a substantial estate accumulated and a high-bracket tax problem, consider transferring a portion of your estate to your children for ten years under a reversionary trust. The income will be taxed to them during the ten years (and may be used to pay for their college education) and the principal will then come back to you. Since your children probably have no other income, it means that the income will be tax-free during the ten years.

If you plan to leave something to charity at your death, don't do it through your will. (Wills must be probated, which takes time, costs money, and invites publicity.) Set up an irrevocable living trust from which you draw the income during your life and the principal goes to the charity at your death. Uncle Sam will let you deduct a substantial proportion of the total amount as a gift to charity *this year*. For example, if you put $5,000 in a trust to go to a charity at your death, that's the same as giving them, say, $4,000 now. You can deduct $4,000 from your income this year for tax purposes. If you're in the 50 per cent bracket, you'll save *$2,000* in taxes *this year* by giving $5,000 in a trust rather than under your will.

If you have a big, fat capital gain on a stock you'd like to get rid of, give it to a charity with an agreement that they'll sell it (paying no capital gains tax) and put the proceeds into a mutual fund on which they'll pay you all distributions, including even those from capital gains, for the rest of your life. And you can count the whole transaction as a gift to charity *this* year and enjoy an income tax saving *this* year.

The purpose of all this planning is primarily to build retirement security for you, too. So when you reach 60 or 65 and want to ease off a little, just tell the bank to begin paying you the income on your living trust. You can enjoy real peace of mind. The managers of your conservative, balanced-type investment fund will "roll with the punch", increasing or decreasing their holdings of stocks or bonds as the economic outlook dictates.

Everything they do will be reported in statements you will receive.

You are going to have to pay for this, of course—generally about 8 per cent of whatever you put into it. It's well worth paying. Compare it with the 15 per cent sales mark-up on life insurance, the 25 per cent mark-up on your automobile, the 80 per cent mark-up on your suit.

Large investments entitle you to a discount. Be careful of suggestions that you "diversify" your management by dividing your purchases among several funds. You'll end up owning General Motors and General Electric in each of them, and you will have lost the quantity discount you'd have had if you concentrated in one or two funds.

Speaking of discounts: never, *never* buy a fund solely because it will give you a discount. The *only* important thing is the quality of the management, demonstrated over many years. Larger funds have lower operating costs; small funds may be more flexible. The fact that a fund is small doesn't mean that it isn't good. On the other hand, if it has been in existence for several years and has stayed small, there may be a reason. Some small funds offer group-purchase discount plans; the industry's own regulatory body has branded these as "improper." They should be avoided.

When it comes to investment, nothing is absolutely certain. Many people have concluded, though, that careful planning plus some such combination of bank, insurance company and mutual fund services as I have described here constitutes a practical plan to make their estates as safe, and as productive, as humanly possible.

Cuban Government Refuses Investigation

The Cuban government has refused to permit the World Medical Association to send a small delegation to investigate charges that members of the medical profession there have been murdered and jailed. It likewise has refused to permit any of the associations of professional groups to meet and is reported planning to dissolve semi-official medical and bar associations.

Medicine, Optometry, and the Public Welfare

The National Medical Foundation for Eye Care has recently issued a pamphlet which contains reports based upon the same factual material which served as the basis for the introduction and adoption of a series of resolutions presented by the Section of Ophthalmology of the American Medical Association to the AMA House of Delegates at its June, 1955 meeting. In this publication it is pointed out that attempts to make the optometrist more competent in recognizing ocular diseases by increasing his meager and generalized information on those subjects were understandable and laudable. For obvious reasons it has been concluded that it is not in the public interest for physicians to attempt to educate optometrists to recognize, much less diagnose and treat, ocular disease or the ocular manifestations of general disease. The conclusion is reached that teaching optometrists is unethical.

Resolutions were adopted to the effect that in the public interest suitable criteria for the referral of patients by the optometrist to the ophthalmologist should be established, that an ophthalmologist in accepting such referral accepts the responsibility for determining the future eye care of the patient, and that it is proper for an ophthalmologist to indicate to an optometrist who has so referred a patient, the nature of the condition in general terms, the nature of his interpretation of the condition to the patient, and whether or not the patient has been placed under medical care.

The pamphlet contains in detail four criteria for such referrals, the method for the optometrist to follow in such referrals, as well as the response of the ophthalmologist as stated above.

Medical Economics Not For the Public

Our Vermont friends have called our attention to the fact that periodicals written specifically for physicians should not be placed in physicians' waiting rooms. It is stated that several malpractice suits have appeared as the result of patients reading these publications. *Today's Health* is written specifically for lay consumption and deserves a place in every doctor's waiting room.

AMA — PHILADELPHIA — DECEMBER 2-5, 1957

Fluoridation of Public Water Declared Safe — Forand Bill Providing Hospitalization and Surgical Benefits For Aged Is Socialized Medicine — Free Choice of Physician Reaffirmed — Heller Report to Streamline Operation of American Medical Association — Alternate Delegates to Receive All Delegates Material — American Research Foundation Formed — Committee to Study Neurological Disorders in Industry — Guides for Medical Rating of Physical Impairment — United Mine Workers Retirement Fund — Group Practice — Jenkins-Keogh Bills — Distribution of Interns — Physician Participation in National Accreditation Program for Schools of Nursing — Distribution of Vaccine — Inadequacies of Civil Aeronautics Administration — Liaison Committees.

REGISTERED FROM CONNECTICUT

Thomas J. Danaher, Torrington, Delegate; Member Council on Medical Service.

Stanley B. Weld, Hartford, Delegate; Member Reference Committee on Credentials.

John E. Gallivan, East Hartford, Delegate; Member Council on Industrial Health; Chairman Reference Committee on Rules and Order of Business.

Norman H. Gardner, East Hampton, Alternate Delegate; Member Council on Rural Health.

D. Olan Meeker, Riverside, Member, AMA Committee on Legislation.

Creighton Barker, New Haven, Executive Secretary, Connecticut State Medical Society.

Egmont J. Orbach, New Britain, Member, Panel on Vascular Diseases.

Raymond K. Bopp, New Haven.
Howard S. Colwell, New Haven.
Evans H. Daniels, Jr., Hartford.
Joseph M. Danylew, East Hartford.
Charles E. Dutchess, Newtown
Lyle Q. Ellis, Hartford
Larry L. Feder, Hartford
Stuart C. Finch, New Haven
W. W. L. Glenn, New Haven
James J. Hennessey, Hartford
William H. Horton, Windsor
S. L. Joslin, Fairfield
James L. Keegan, Bridgeport
Aaron Levinsky, Bridgeport
Henry B. C. Low, Hartford
Louis A. Parella, North Haven
John P. Riesman, Branford
Jacques Robbins, Thompsonville
Andrew Turano, Middletown
Charles Zigun, Bridgeport

FLUORIDATION

The two most important subjects to be acted upon at the Clinical Session in Philadelphia were the fluoridation question and the Forand Bill. The Board of Trustees submitted a comprehensive report on fluoridation of public water supplies prepared after a joint study by the Council on Drugs and the Council on Foods and Nutrition presenting available information on the subject. In the discussion on the floor it was brought out that this procedure will reduce the incidence of dental caries in children 56 per cent but that it is only one of the aids in preventing this condition, that not only this but all other aids such as adequate diet, proper hygiene, etc., are needed. The House adopted the report of the reference committee to the effect that fluoridation of public water supplies is a safe and practical method of reducing the incidence of dental caries during childhood. The committee had nothing to say about the introduction of such a measure in communities as this is a matter to be decided by local option.

FORAND BILL

The Forand Bill, H.R. 9467, which would amend the Social Security Act to provide for federal subsidization of hospital and acute surgical care for retired and survivor beneficiaries under Title II (OASDI) of the Act, came in for a good share of consideration. In his presidential address Dr. Allman called this socialized medicine. "This is Oscar Ewing's National Compulsory Health Insurance all over again," he said. He continued, "A decade later perhaps and for a limited number of people but it is 'cut from the same cloth' and, I am sure, emanates from the same minds.

"It is the beginning of the end of the private practice of medicine.

"It is the death knoll for the young and growing health insurance industry.

"It is a serious threat to the well being and local autonomy of the voluntary hospital at the community level.

"It is socialism under the auspices of the federal government."

This bill if passed would permit the federal government to withdraw Social Security taxes on a compulsory basis from almost the entire working population and use those taxes to reimburse hospitals and physicians for services rendered to all persons (some 12 to 13 million) eligible to receive old age and survivors benefits. As a matter of fact there are only about three per cent of the population who really need such assistance. Blue Shield coverage if continued after retirement, as it can be, will perform the same function with no government intervention. To quote Dr. Allman further: "I admit that the Forand proposal would relieve a large segment of our population—the older folks, their children, management, labor unions, physicians and others—of their responsibilities, but I do not believe that the surrendering of the principle of self reliance and the experience of private know-how for the abuse of government dictation can solve the nation's problems."

The reference committee as well as the president called for universal opposition to the Forand Bill with action at all levels of organized medicine. This is considered a more serious threat even than the Murray-Wagner-Dingle Bill, now properly buried.

FREE CHOICE OF PHYSICIANS

The House of Delegates reaffirmed its previous policy on the free choice of physicians, pointing out that contract practice *per se* is not an ethical question but that ethics is concerned with the form of the contract and with the conditions under which it is made.

MEDICARE

A Rhode Island resolution called on AMA to consider asking courts to decide whether the military's Medicare program is denying free choice of physicians to beneficiaries. The resolution was endorsed in spirit but delegates demurred at taking issue to court. A Utah resolution urging amendment of Medicare Act to make Blue Shield the underwriter was shelved, on the ground that the program is still too young to justify such a step.

In reference committee hearing, preceding final floor action, charges that Medicare is abridging free choice by forcing military dependents to use only those physicians who agree to accept government allowance as full payment were made by John E. Farrell, executive secretary of Rhode Island Medical Society. Ohio supported this position but Connecticut, Massachusetts and New York spokesmen supported Medicare's insistence on full-service care, rather than indemnity-type.

CARE FOR VETERANS

Hearty endorsement was given the proposal by the Council on Medical Service of an AMA-sponsored conference on veterans' medical care some time in 1958. Its main purpose, to iron out difficulties and inconsistencies presently associated with compensation of private physicians who give fee-basis services to veterans.

Questionnaire data have been tabulated by AMA on the various systems of fee payments in this "home town care" program. Ten states have intermediary contracts with VA, in which the medical society or Blue Shield acts as a third party. Fifteen states have a negotiated fee schedule with VA but the latter administers the program and payments itself. Twenty-two states have no contractural relation with VA. One was negotiating a contract with VA at time of the recent questionnaire survey.

THE HELLER REPORT

Pursuant to the instructions of the House of Delegates in 1956, the Board of Trustees engaged the services of Robert Heller Associates of Cleveland to study the organization of the American Medical Association and make recommendations for streamlining and improving the same. The report submitted by this group was studied by a special committee appointed by the Speaker of the House at its last meeting in June. This committee in turn presented its report to the House of Delegates at Philadelphia. As much of the Heller Report related to administration and executive matters which are under the direction of the Board of Trustees or

General Manager and are receiving continuing study by the Board, the committee passed over them. Other items in the 63-page report required no action by the House of Delegates. Ten recommendations were made in the final report by the Reference Committee on the Heller Report and all except one were adopted. These called for continuing the office of vice president as an elective office; combining the secretary and treasurer's offices into one; changing the title of the general manager to executive vice president; continuing the Board of Trustees limited to eleven, nine elected plus the president and president-elect and permitting the vice president, speaker and vice speaker to attend all the sessions of the Board without vote; leaving the Council on Medical Education and Hospitals and the Council on Medical Service as standing committees of the House; and not changing the status of the Committee on Federal Medical Services to operate under the Council on National Defense but retaining it as a committee of the Council on Medical Service. The one recommendation in the Heller Report approved by the committee studying it but rejected by the House was the election of the nine trustees according to physician-population regions.

It is of interest to note in passing that *Today's Health,* which had a deficit this past year of $175,000, now has a full-time editor who formerly was editor of a women's magazine and that it is restudying its entire advertising program with a view to improvement in reader appeal and in financial returns.

AMERICAN MEDICAL RESEARCH FOUNDATION

In order to initiate and encourage necessary medical research and to correlate and disseminate the results of the studies already under way, the Board of Trustees has established and incorporated the American Medical Research Foundation with appropriate legal advice. This was approved by the House of Delegates.

NEUROLOGICAL DISORDERS IN INDUSTRY

The Council on Industrial Health will now have a new committee to study neurological disorders in industry. This has been felt to be necessary because the industrial aspects of neurological disorders are nowhere well correlated for study by the multiplicity of existing agencies concerned with various nervous disorders.

GUIDES FOR MEDICAL RATING OF PHYSICAL IMPAIRMENT

There seemed to be a plethora of "Guides" for this and that brought forth for approval by this session of the House of Delegates. Possibly the most important one was the 115 page "Guide to the Evaluation of Permanent Impairment of the Extremities and Back." This was approved and will appear in the *Journal AMA* at some future date.

UNITED MINE WORKERS RETIREMENT FUND

The House went on record as condemning "the current attitude and method of operation of the United Mine Workers Association Welfare and Retirement Fund as tending to lower the quality and availability of medical and hospital care to its beneficiaries" and asked that an educational program be implemented to inform the public of "the benefits to be derived from the preservation of the American right to freedom of choice of physicians and hospitals" which is not possible under the United Mine Workers present program.

GROUP PRACTICE

The House affirmed "that it is within the limits of ethical propriety for physicians to join together as partnerships, associations, or other lawful groups provided that the ownership and management of the affairs thereof remain in the hands of licensed physicians."

JENKINS-KEOGH BILLS

It was pointed out by the Reference Committee on Legislation that members of the AMA should take a more active and personal part in programs promoting the ideals and principles of the American Medical Association. The Jenkins-Keogh Bills, H.R. 9-10, now pending before the 85th Congress providing for equitable retirement for the self employed are striking examples of such ideals and principles and merit whole-hearted support by all physicians and their friends.

DISTRIBUTION OF INTERNS

A resolution was introduced calling for a mandatory reduction of 25 per cent by all hospitals participating in the National Intern Matching Program when and if voluntary hospital reductions of interns by 25 per cent fails. This was defeated. At the same time the National Intern Matching Program was approved, and it was voted that more voluntary two year internships be made available by hospitals, the second year to count as the first year of a residency.

ACCREDITATION PROGRAM FOR SCHOOLS OF NURSING

Indiana called attention to the fact that the American Medical Association has only token representation in the accreditation program for schools of nursing. Recognizing the need for top level contact to explore methods of more intimate liaison between the medical and nursing professions, the House voted to refer the matter to the Board of Trustees for implementation and report back to the House in June.

PHYSICIANS IN FEDERAL MEDICAL SERVICE

The resolution as amended and approved by the House of Delegates is here quoted in full since this has been and still is a problem of our societies at the local level.

"Whereas, There are approximately ten per cent of the active, practicing membership of the A.M.A. in Federal Medical Services, increasing annually the relative percentage of these physicians to the total number of practicing physicians; and

"Whereas, These physicians are not dues-paying members of the A.M.A., nor may they vote; and

"Whereas, Active participation of these physicians is sorely needed in all county and state medical associations; and

"Whereas, In most if not all county medical societies there are relatively few members of Federal Medical Services participating to any extent in the activities of these local medical societies; and

"Whereas, It is extremely difficult to enlist active participation of these physicians in local medical societies especially if dues, however small, are charged as long as non-paying membership in the A.M.A. is offered; and therefore be it

"Resolved, That membership in the American Medical Association of physicians engaged in Federal Medical Services be reconsidered by the Council on Constitution and By-laws; that this council be requested to seek means of increasing active participation of physicians in this classification and in local medical societies; and be it further

"Resolved, That the Council on National Defense, through its Committee on Military Medical Affairs, assist in the accomplishment of this objective and report back to the House of Delegates of the A.M.A. in 1958; and be it further

"Resolved, That the Surgeons General of the Army, Navy, Air Force, and Public Health Service, Veterans Administration and other allied branches be requested to participate in this program and that special recognition or credit be granted to physicians in Federal Medical Services who participate actively in local medical societies."

VACCINE DISTRIBUTION

At the direction of your Council your delegates introduced a resolution looking toward a solution of the inequities and confusion which have arisen in the distribution of the Salk and the Asian influenza vaccines. Two other similar resolutions were introduced. Our resolution with certain deletions was recognized by the reference committee as best meeting the situation. As adopted, the Board of Trustees is now instructed to seek conferences through the joint committees with the American Pharmaceutical Association, the National Association of Retail Druggists, and the Drug Manufacturers Association "with a view to establishing a code of practices regulating the future distribution of important therapeutic products, so that the best interest of all the people may be served."

INADEQUACIES OF CIVIL AERONAUTICS ADMINISTRATION

A truly bad situation in civilian aviation was brought to the attention of the House by a delegate from Wisconsin. There are today such glaring inadequacies in the examination and licensing of pilots that after listening to the details one shudders to think of the risks assumed by the American public in traveling by air. The resolution called for the establishment of a Medical Department within the Civil Aeronautics Administration. There have been 28,000,000 passengers on our airlines this year. The Medical Department of the C.A.A. is grossly inadequate as to number of physicians and other personnel so that it cannot keep up with the examinations of pilots nor carry on education and supervisory facilities and research activities. The House recommended "that a completely adequate and competent Medical Department be established in the C.A.A. directly responsible to the C.A.A. Administrator," that it be provided with a proper budget to carry on its functions on a high level, that the A.M.A. support appropriate legislation, as may be necessary, to accomplish these purposes, and that all the individuals concerned from the President of the United States down be informed of these recommendations.

LIAISON AND OTHER COMMITTEES ON THE LOCAL LEVEL

The House approved a recommendation that the American Medical Association and the American Hospital Association recommend to their constituent associations that joint medical and hospital liaison committees be appointed at the state level with purposes similar to the national professional liability committee.*

The House voted to urge every state medical association to create a committee on aging or to assign the problem of the care of the aged to an existing committee. It also voted to urge every state medical association and every county medical society to participate actively in the planning and operation of medical care programs for the indigent. It further voted to urge the development of official liaison between medical societies and medical schools for solving problems, settling questions, or adopting policies which many concern the private practice of medicine or in which the medical profession may be of assistance to the medical schools.

Hereafter, all alternate delegates will receive the same material provided for the regular delegates in the House.

GENERAL PRACTITIONER OF THE YEAR

As you doubtless have learned from the daily press, Dr. Cecil W. Clark of Cameron, Louisiana was selected by the House of Delegates as the nation's most outstanding family physician of 1957. It was Dr. Clark who tirelessly ministered to the needs of the victims of hurricane Audrey while his wife and five children were swept away from their home. Mrs. Clark and two of the children survived.

Philadelphia greeted the members of the medical profession who attended this Clinical Session with a veritable blizzard. It served, however, to afford added opportunity for social contacts and renewal of old friendships so valuable to all who labor on behalf of their fellow physicians.

Is Medicine in the "Insurance Business"?

More than seventy medical society-sponsored Blue Shield Plans are serving nearly one fourth of the people of the United States, and underwriting about 40 per cent of all the basic surgical insurance and about 50 per cent of all the basic medical (non-surgical) insurance now in force. The rest is underwritten by more than 800 private insurance companies and independent local plans.

Is medicine—by its sponsorship and control of Blue Shield—in the "insurance business"? Let's remember, first, that the medical profession organized these Plans at a time when the insurance industry said it couldn't be done. And they were right. Medical care prepayment couldn't be organized and offered by an insurance company. It had to be done by medicine itself.

Blue Shield succeeded because America's doctors were behind it. They accepted less than normal schedules for their services; they agreed to accept (and in many areas they have actually accepted) prorated portions of those fees when the local Plan has been unable to pay the full schedule. Medicine's leaders have accepted the responsibility for guiding and directing their local Blue Shield Plans—a job that accounts for an incalculable number of unremunerated hours on the part of hundreds of the country's busiest physicians.

Have the members of our profession accepted these duties and responsibilities in order to put medicine "in the insurance business"? Certainly not! Medicine is in the business of providing medical care—nothing else. The profession has always been concerned with the ways and means by which patients pay for medical care and provide for future medical needs, and the profession quite naturally wants to control the basic economy of medical practice.

Medicine is *not* in the insurance business. But, through Blue Shield, the profession *is* in the business of helping patients pay for their doctors' services. And in the final analysis, the patient alone profits through participation in Blue Shield.

Today's Health, popular educational magazine published by the American Medical Association, is now in the reception rooms of 100,000 medical offices.

The Woman's Auxiliary to the Connecticut State Medical Society sponsors subscriptions to this leading health magazine. It is available to physicians at half price and may be obtained by mailing the coupon on this page.

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Exhibit on Emergency Call Plans Sponsored by Naugatuck Valley Medical Society

An exhibit provided by the State Medical Society depicting the location and operation of community emergency medical plans is currently being sponsored by the Naugatuck Valley Medical Society in the five communities of Derby, Ansonia, Shelton, Seymour and Oxford.

The exhibit is now being displayed in lobbies and windows of public buildings, banks, and business houses in Ansonia.

Dr. John M. Renehan is chairman of the committee in charge of the exhibit in Ansonia. Following its use in that community, the exhibit will be transferred to other community committees for completion of the itinerary.

The exhibit is self contained and measures 3 x 5 feet when opened for display. It is illuminated and features a relief map of the state on which are located the 18 emergency plans now sponsored by county and local medical associations in major population centers. Leaflets and cards explaining the operation of the plans and listing their telephone numbers are furnished with the exhibit for distribution to local residents. The exhibit is available to local medical associations without charge through the office of the State Medical Society.

"March of Medicine" TV Program Scheduled for January 23

An hour-long national telecast entitled "M.D. International," will be aired at 10:00 p.m. EST, January 23 as a feature of the March of Medicine television series.

The production will be presented over the full NBC television network in color and black and white, and will feature the work of American physicians in remote regions where the native population is dependent upon them for health and well being.

The telecast will report on surgery, orthopedics, ophthalmology and general medicine in Korea, Hong Kong, Burma, India, Lebanon and Ethiopia.

Leaders of several of the foreign countries will express the gratitude of their people for American medical assistance. The March of Medicine series is produced in cooperation with the American Medical Association and the Smith, Kline and French Laboratories.

New Exhibits on Poisoning and Weight Reduction Available for Community Programs

County and local medical associations will be offered opportunities to sponsor local health education programs through two new community service displays being prepared by the Bureau of Exhibits, American Medical Association.

Entitled "Poisoning of Children in the Home," one of the exhibits will pinpoint as eight leading offenders such products as aspirin, kerosene, old medicines and household chemicals. The exhibit is animated by a revolving display of products which have played a part in poisoning cases.

The second exhibit, "You Can Reduce," stresses the importance of willpower in the proper selection of foods and illustrates the basic foods that should be eaten daily. Models in three dimensions depict the caloric contents of the basic foods.

The exhibits may be booked by local associations after January 1 and inquiries may be directed to the State Medical Society.

Bright Future Forecast for TV Health Education

The future for health education and other public service television programs is bright, according to Irving Gitlin, director of public affairs for the Columbia Broadcasting System.

Audiences are seeking more informational programs and networks agree there is equal interest among televiewers in both education and entertainment.

Mr. Gitlin spoke on the topic "Changing Trends in Programming and Listening" at a national conference on the use of television and radio in the health field sponsored by the American Medical Association and the National Association of Radio and Television Broadcasters, November 7-8 in Chicago. The speaker stressed that 89 million American homes are now being reached by television and that 96 per cent of all homes have radios.

The two day program featured more than 20 speakers in the communications media and was attended by 125 representatives of state and county medical societies, allied health and welfare organizations, and radio and television stations. A summary of the conference may be obtained through the State Medical Society by medical association committees interested in developing local radio and television programs.

Health Insurance Council Announces Ten Year Report

Ten years of service to physicians and hospitals is reviewed in a new report by the Health Insurance Council.

Entitled "Serving the Health Care Field," the report is published in booklet form and describes the information and technical assistance program conducted by the Council since 1946. Copies of the booklet are being distributed to medical and hospital groups, other health agencies and insurance companies.

The report cites as major achievements of the Council the development of simplified claim forms for physicians and hospitals which have been endorsed by medical and hospital associations and the Hospital Admission Plans under which patients may use insurance benefits as hospital account credits.

The Council, a federation of eight insurance associations, has announced that copies of the report may be obtained without charge by writing to the Health Insurance Institute, 488 Madison Avenue, New York 22.

The Care of the Feet

Charles Mayo put the problem succinctly in these words: "I am convinced that doctors of medicine, myself included, have paid too little attention to the feet in their relationship to the condition of a patient, and have made too cursory an examination of the feet, considering their importance to people with the beating they take and their potentiality as a source of comfort or discomfort. The doctor of medicine should be capable of recognizing foot ailments. When care and treatment of such conditions are necessary, he should refer the patient to those accredited and skilled in that specialty when such consultation is available."

Ruben Friedman, M.D., clinical professor of dermatology, Temple University School of Medicine, put it another way, "It has been estimated," he said, "that disorders of the feet occur in 80 per cent of women and in 60 per cent of men. Few practitioners of the healing arts are as familiar with the almost infinite number and variety, as well as the significance, of the sign and symptoms and diseases of the pedal extremities as is the chiropodist. Once he is engaged in active practice, the chiropodist sees more patients suffering from one form or another of diseases of the feet than does any practitioner of medicine."

The chiropodist renders an especially valuable service to the diabetic patient and to the one with peripheral vascular disease. In fact, many hospitals have instituted chiropody services for their diabetic, peripheral vascular and orthopedic clinics.

In the management of the diabetic and in peripheral vascular disease, it has been demonstrated that prophylactic foot care means fewer infections. In one study, it was found that scrupulous podiatric prophylaxis improved the prognosis of foot infections 77 per cent. Joslin has emphasized the necessity of chiropody care in all diabetic and in peripheral vascular patients. Gray states unequivocally that in diabetics the incidence of gangrene and subsequent amputations has been greatly reduced as a result of podiatric care.

Foot disorders cost industry many millions every year. One employee out of ten has foot disability serious enough to cause absenteeism. One in four gets "afternoon fatigue" from his feet, thus interfering with efficiency and safety in these plants. Periodic examinations would disclose 95 per cent of pending foot disorders and more than repay industry for the time and money expended. Our survey showed that thirty important companies employ a full time chiropodist to check employees. The study further shows that this has decreased absenteeism.

Reprinted from Journal of the National Association of Chiropodists.

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NEWS FROM WASHINGTON

AMA's Reasons for Opposing Hospitalization at Age 65 Under OASI

Announcing that it will "strongly oppose" the Forand bill for hospitalization and medical benefits under social security, the American Medical Association has explained its reasons. The Forand bill is H.R. 9467, introduced late last session. It offers 60 days of hospitalization, plus surgical benefits, and an additional 60 days of nursing home care, to all social security beneficiaries 65 years of age and older, and the same benefits to their survivors and dependents. Says Dr. David E. Allman of Atlantic City, AMA president:

"This proposal is clearly 'socialized medicine' for a segment of the American people. Enactment would permit the federal government to withdraw social security taxes on a compulsory basis from almost the entire working population and use those taxes to reimburse hospitals and physicians for services rendered to all persons eligible to receive old age and survivors benefits. The American Medical Association has repeatedly opposed compulsory health insurance and is unequivocally opposed to this new version."

A task force of the Board of Trustees now is making an intensive research study of the health status of the population 65 years of age and over. Heading this special group is Dr. George M. Fister of Ogden, Utah, under whose direction Walter Polner (Ph.D.) has been assigned to gather information on extent of the problem, economic resources of those affected, contributions from public assistance, relationship of the aged persons to others in the family group, incidence of hospitalization and illness by age groups, and growth within the last 10 years of voluntary health insurance for the aged.

Answers obtained to these questions will be the basis of AMA's testimony when the bill comes up in Congress this year and of the Association's educational efforts in behalf of the public.

Solution to the problem, Dr. Fister maintains, is not a compulsory federal program but the extension to older persons of voluntary health insurance, which has such a remarkable record of service. Comments Dr. Fister:

"The A.M.A. has supported and promoted voluntary health insurance and other voluntary measures designed to promote individual and family economic security and responsibility. Progress in this direction has been phenomenal. Let's not take hasty action . . . This picture is too complex. What we must do is study the problem carefully. Government intervention would be fatal."

Dr. Fister noted that "the strength of the opposition to this precipitate and revolutionary proposal is great." He said that allied with the AMA were the American Farm Bureau Federation, the National Retailers Federation, the U.S. Chamber of Commerce, life and health insurance industries, the National Association of Manufacturers and "innumerable other organizations and individual citizens who are opposed to government intervention into medical and other private affairs."

The pressure for expansion of the Social Security System into the area of health and medical care benefits is formidable. Congressman Forand, Democrat, Rhode Island, has expressed his gratitude to the AFL-CIO for assistance in framing the bill. Many members of Congress will inevitably support such legislation because of pressure from their constituents, particularly those over 65, who will be favorably impressed by the immediate benefits to be gained. Social Security has been difficult to contain because of its intrinsic political appeal.

Trustees of American Hospital Association have rejected the letter—if not the spirit—of the controversial Forand bill. Reflecting almost irresistible pressure by AMA and National Association of Manufacturers, the policy-making group concluded that H.R. 9467 provides inadequate safeguards against interference by Federal government with hospital operations. But board stated that "it believes the use of social security for providing the mechanism to assist in the solution of the problem of financing the hospital needs of the retired aged may be necessary ultimately." While refraining from total condemnation of Forand bill, as AMA would have desired, the trustees shut the door on

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this measure somewhat tighter than its Council on Government Relations had recommended. They owned to "serious misgivings with respect to the use of compulsory health insurance for financing hospital care even for the retired aged."

PHS Advises Against Community-Wide TB X-Ray Campaigns

Public Health Service, acting on advice of a committee of medical and public health leaders called in to re-evaluate recent changes in the nature of the tuberculosis problem, is recommending against community-wide chest x-ray campaigns for detection of TB. Instead PHS recommends that communities use tuberculin skin testing as a first step in case-finding, followed up with x-ray examinations for those with positive reactions.

The service suggests that x-ray examinations be continued on selective groups, those with greatest risk, such as persons confined to hospitals and other institutions, low-income groups, migrant workers and people known to have been exposed to the disease. It was emphasized that groups to be given x-rays should be selected locally, with the choice based on the local tuberculosis problem, the expected yield of new cases and the adequacy of diagnostic and treatment facilities and of follow-up services.

One factor given consideration in reaching the decision, PHS says, is "the problem of low-level radiation exposure from x-rays." To further reduce radiation exposure, both of the operators and the public, PHS urges periodic inspection of all x-ray equipment, and installation of further protective devices where indicated.

Of the new tuberculosis picture, PHS says: "In the last 15 years . . . the tuberculosis problem has changed radically. Some areas of the country are now practically free of active cases of the disease. In other areas, tuberculosis continues to be a serious problem, particularly among certain groups. While the number of active cases has declined almost 30 percent in the last five years, it is estimated that there are still about 250,000 persons with active tuberculosis in the United States today."

The committee that advised PHS to make the recommendations was composed of: *Drs. Russell H. Morgan,* chief radiologist, Johns Hopkins University Hospital, and special consultant to the surgeon general on the public health aspects of radiation; *Ralph Dwork,* director of health, Ohio State Department of Health; *Floyd Feldman,* medical director, National Tuberculosis Association; *Joseph Stocklen,* tuberculosis control officer, Cleveland and Cuyahoga County Health Department.

Report Casts Light on Worker Health Programs

Made public simultaneously in Ann Arbor, Mich., and Washington are findings of an industrial medical care study made by Univ. of Michigan Survey Research Center for Occupational Health Program of USPHS. Many interesting and important points were developed—varying receptiveness of management to inplant health services, role of labor unions, growing popularity of pre-employment physical examinations, etc. Study covered random selection of firms in *Bridgeport, Conn.,* Cleveland and Houston employing from 50 to 500 persons and a cross section of four selected industries in these three areas, plus San Francisco and Philadelphia.

The selected industries: Chemical manufacturing, general merchandise retail stores, machinery manufacturing and *general hospitals not operated for profit.* Limited number of copies of the report are obtainable gratis upon request to Occupational Health Program, USPHS, Dept. of HEW, Washington, D. C.

Study on Use of Anticoagulant Drugs to Prevent Strokes

The National Institute of Neurological Diseases and Blindness has awarded $58,000 in grants to six medical research centers and medical schools to conduct the first cooperative study to evaluate the effectiveness of anticoagulant drugs to prevent strokes. The work is scheduled to be completed in about three years. In announcing the study, Public Health Service pointed out that strokes and cerebral vascular diseases rank next to heart disease and cancer as killers and take an estimated 172,000 lives annually in this country. Of the new study, PHS said:

"Anticoagulant research in the cerebrovascular field has been under way in various research centers for several years. Under the new cooperative program the coordination of research efforts can provide a thorough evaluation of anticoagulant ther-

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apy in a relatively short time. An estimated 1800 patients will participate—a total far beyond the number available for study by any one institution except over a period of many years."

Participating in the study are: University of Miami Medical School, Miami, Fla.; Emory School of Medicine, Atlanta, Ga.; Massachusetts General Hospital, Boston; Duke University School of Medicine, Durham, N. C.; University of Pennsylvania Hospital, Philadelphia; and Cornell University Medical School.

Medicare Program Marks First Anniversary: $43 Million in Claims

The military's medicare program is one year old on December 7. To date, according to the Defense Department, the government has paid more than 300,000 physicians' bills amounting to $22 million, and over 200,000 civilian hospital bills totaling $21 million. While the combined total is considerably under the estimated $76 million a year for the program, the Office of Dependent's Medical Care points out that there is a backlog of claims. In all likelihood, the President's budget going to Congress next month will ask for around $76 million.

Administrative costs, according to OCDM, have been running around 3% of total expenditures, which a spokesman said was just about "on the button." Almost 40% of medicare patients have been maternity cases. The Air Force leads the services with 41% of eligible dependents participating; then the Navy, with 32%; Army, 25%, and Public Health Service, 2%.

The medicare program was enacted into law on June 7, 1956, and became effective six months later. Its objective is to create and maintain high morale in the uniformed services by providing an improved and uniform program of medical care for members and their dependents.

Medical or Lay Control

The following is reprinted from the Bulletin *of United Medical Service as written by its chairman, Louis H. Bauer, M.D.*

Voluntary Health Insurance is now at a critical stage. The public is demanding and will insist on getting what it wants, one way or another. The question to be decided is: Will these demands be met in a manner that will ensure the public receiving high quality medical care, or will they be met by plans which consider the dollar more important than the patient's health? Will the delivery of medical care be controlled by those who know most about it or by lay agencies—including government, which are more concerned with quantity than quality?

There are proposals for complete coverage of all aspects of medical care with someone other than the patient footing the bill. Except in the case of the indigent, the patient should bear some of the costs of his illness.

Blue Shield, the "Doctors' Plan," is accused by many of being only a plan to protect doctors. This, of course, is ridiculous as it is the public that is benefiting—not the doctors. It is their contribution to the solution of an important problem. The problem, however, will not be solved until the doctors decide to unite and find a plan that will solve the whole problem. Blue Shield solves, or could solve the problem of surgical-medical coverage if all doctors supported it. More than surgical-medical coverage, however is demanded, as the ancillary costs are often the most expensive part of illness.

Various plans of so-called "major medical coverage" have evolved, none of them completely satisfactory.

This may be through insurance premiums or payment of some aspects of medical care. Once the incentive for an individual to feel responsible for himself and his family is removed, we have struck at the very roots of democracy. When the patient has no responsibility for the cost, he has no incentive to keep costs down and abuses develop.

The medical profession knows the necessary hospital provisions and their cost; the treatment necessary; the cost of nursing care, medicaments, etc.; and what happens when "assembly line" medicine is practiced.

Therefore, it is high time for the medical profession, itself, to unite and become concerned with the development of a realistic over-all plan—not one involving just a portion of the problem. The alternative is lay controlled medicine which will eventually lead to government control.

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SPECIAL NOTICES

SATURDAY MORNING GUEST SPEAKER PROGRAM

Hartford Hospital Amphitheater, 11 A. M.
January, 1958

January 4
Pending

January 11
JOHN B. STANBURY, M.D., Harvard Medical School, Boston.
Subject: HYPOMETABOLISM WITH OR WITHOUT HYPOTHYROIDISM.

January 18
EDWARD G. WATERS, M.D., Chief of Obstetrics, Margaret Hague Maternity Hospital; Assistant Clinical Professor of Obstetrics & Gynecology, Columbia University College of Physicians and Surgeons. Subjects: (10 A.M. and 11 A.M.) TO BE ANNOUNCED.

January 25
WILLIAM T. GREEN, M.D., Professor of Orthopedic Service, Children's Hospital, Boston. Subject: BONE AND JOINT INFECTION IN CHILDREN.

ANNUAL MEETING CONNECTICUT HEALTH LEAGUE

Date: Wednesday, January 15, 1958
Time: 2:00 P.M.
Place: New Haven Medical Association Building, 364 Whitney Avenue, New Haven

Agenda

I. *Business Meeting—2:00 P.M.*
  1. Minutes of Semi-Annual Meeting June 19, 1957
  2. Treasurer's Report
  3. Committee Reports
  4. Election of Officers

II. Program—2:30 P.M.
  NEEDS AND SERVICES FOR THE CHRONICALLY ILL AND AGED—THE TASK OF TWO NEW COMMISSIONS
    Chairman—R. C. Edson, M.D., Medical Director, Cedarcrest Hospital
    Speakers—Paul S. Phelps, M.D., Executive Director, Commission on Tuberculosis and Other Chronic Illness
    Donald P. Kent, Ph.D., Secretary, Commission on Services for Elderly Persons
    General discussion and questions from the floor.

Voting in the business meeting is limited to official delegates of the Connecticut Health League. The public is invited to attend the entire meeting and take an active part in the program. Please post this notice on your agency bulletin board.

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Clinical Programs for January, February and March, 1958

Monday, January 13, 1958, 7:30 P.M.
The program originally scheduled for December 1957: Orthoroentgenography
Dr. Jaime M. Benavides, Philadelphia
Open Reduction in Dislocation of the Hip
Dr. Louis A. Coulson, New London

Monday, February 10, 1958, 7:30 P.M.
Psychological Effects of Hospitalization
Dr. Milton J. E. Senn, New Haven

Monday, March 10, 1958, 7:30 P.M.
Capsular Arthroplasty for Congenital Dislocation of the Hip in Childhood
Dr. Paul C. Colonna, Philadelphia

American Group Psychotherapy Association
15th Annual Meeting
New York City
January 22-25, 1958

POSTGRADUATE COURSE IN DIABETES AND BASIC METABOLIC PROBLEMS

January 22, 23 and 24, 1958 in Atlanta

The American Diabetes Association will offer its Sixth Postgraduate Course in Diabetes and Basic Metabolic Problems in Atlanta, Georgia, January 22, 23 and 24, 1958. The lectures will be held in the auditorium of the Academy of Medicine, Fulton County Medical Society.

Dr. Charles H. Best, of Toronto, will speak on insulin and glucagon in a discussion on the pancreas during the Wednesday morning session, the opening day of the Course. The codiscoverer of insulin also will address the registrants at the conclusion of the final day's session on "Prophecies About Diabetes."

The Course is open to members of the medical profession. The fee for the three day Course for members of the American Diabetes Association is $40, and $75 for nonmembers. The Atlanta Biltmore Hotel will serve as the headquarters hotel. The American Academy of General Practice will give 20 hours Postgraduate Credit for the Course.

For further information and registration forms, write to: American Diabetes Association, 1 East 45th Street, New York 17, New York.

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A.M.A. INDUSTRIAL HEALTH MEETING

January 27-29, 1958

The 18th annual Congress on Industrial Health, sponsored by the American Medical Association's Council on Industrial Health, will be held Jan. 27-29 at the Schroeder Hotel, Milwaukee.

The congress, to be attended by 500 representatives of labor, industry, governmental agencies, and the medical profession, will cover public and professional relations in occupational health, evaluation of disability, occupational skin diseases, and low back pain as it is related to employment.

The opening session Monday afternoon, Jan. 27, will be devoted to public and professional relations in occupational health. Among the panelists will be Dr. R. Lomax Wells, Washington, D. C.; Dr. Elston Belknap, Milwaukee; Dr. Melvin Newquist, New York, and an industrial hygienist, a nurse, and an industrial medical director.

The Tuesday morning discussion on disability will be conducted by Dr. O. A. Sander, Milwaukee; R. G. Knutson, Madison, Wis., chairman of the Industrial Commission of Wisconsin, and physicians representing government.

Various problems in occupational dermatitis will be discussed Tuesday afternoon by Drs. Harry Foerster, Milwaukee; Leonard Weber, Chicago; Donald Birmingham, Cincinnati, and James W. Jordon, Buffalo.

Dr. Gunnar Gundersen, LaCrosse, Wis., president elect of the A.M.A., will speak at the annual banquet Tuesday evening.

The Wednesday morning session on low back pain will include discussions on cause, economic importance, treatment, prevention by medical examination and selective job placement, and rehabilitation and evaluation of disability. Among the participants will be Dr. Henry Kessler, Newark, N. J., and Dr. R. K. Ghormley, Rochester, Minn.

Western Society for Clinical Research
11th Annual Meeting
Carmel-by-the Sea, California
January 30—February 1, 1958

54TH ANNUAL CONGRESS ON MEDICAL EDUCATION AND LICENSURE

Palmer House, Chicago

February 7-11, 1958

Sponsors:
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POSTGRADUATE COURSES AT NEW YORK UNIVERSITY

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Department of Medicine

Modern Trends in the Diagnosis and Treatment of Congenital Heart Disease

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Arthritis and Related Disorders

A part-time course of five sessions, Tuesdays, 9 a.m. to 5 p.m., starting February 11. Under the direction of Dr. Edward F. Hartung. Tuition: $85.00.

Auscultation of the Heart

A three day, full-time course, February 24 through 26. Under the direction of Dr. J. Scott Butterworth. Tuition: $55.00.

Cardiac Roentgenology

A two day, full-time course, February 27 and 28. Under the direction of Dr. J. Scott Butterworth. Tuition: $35.00.

Department of Dermatology and Syphilology

Seminar in Dermatology and Spyhilology
(designed for general physicians)

A full-time intensive course of five days' duration, February 17 through 21. Under the direction of Professor Marion B. Sulzberger. Tuition: $85.00.

Department of Orthopedic Surgery

Orthopedics in General Practice

A full-time course of three days' duration, February 19 through 21. Under the direction of Professor Walter A. L. Thompson. Tuition: $55.00.

Department of Ophthalmology

Annual Review of Ophthalmological Advances

A two and one-half day conference, 9 a.m. to 4 p.m., Thursday and Friday, and 9 a.m. to 12 m., Saturday, February 20 through 22. Under the direction of Professor A. Gerard DeVoe. Tuition: $100.00.

Department of Radiology

Radiobiology

A part-time course, 5:30 to 7:30 p.m., Wednesdays, February 5 through May 28. Under the direction of Dr. Milton Friedman. Tuition: $75.00.

Department of Pediatrics

Review of Clinical Pediatrics

A full-time course of five and a half days' duration, February 17 through 22. Under the direction of Professor Adolph G. DeSanctis. Tuition: $55.00.

Clinical Pediatric Cardiology

A half day course of 10 sessions, 9 a.m. to 12 m., Wednesdays, February 19 through April 23. Under the direction of Dr. Martin M. Maliner. Tuition: $50.00.

Department of Otorhinolaryngology

Seminar in Recent Advances in Otolaryngology

An advanced course of one week's duration, February 17 through 21. Under the direction of Professor John F. Daly. Tuition: $75.00.

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POSTGRADUATE COURSE ON DISEASES OF THE CHEST

The Council on Postgraduate Medical Education of the American College of Chest Physicians will sponsor the 11th Annual Postgraduate Course on Diseases of the Chest at the Warwick Hotel, Philadelphia, March 3-7, 1958.

The most recent advances in the diagnosis and treatment of chest diseases—medical and surgical—will be presented. The tuition fee is $75 including round table luncheons.

Further information may be obtained by writing to the Executive Director, American College of Chest Physicians, 112 East Chestnut Street, Chicago 11, Illinois.

AMA SCHEDULES RURAL HEALTH CONFERENCE MARCH 6-8, 1958

Changing patterns in nutrition, health costs, medical care, dental health and safety will serve as the focal point for discussion at the 13th national Conference on Rural Health to be held March 6-8 at the Hotel Heidelberg, Jackson, Miss. The conference is sponsored by the AMA's Council on Rural Health in cooperation with southern state medical associations and farm, educational and allied organizations. Following the theme—"As the World Turns"—the conference will open Thursday morning, March 6, with greetings by the governor of Mississippi, the mayor of Jackson, the president of the Mississippi State Medical Association, a member of AMA's Board of Trustees and the chairman of the Council.

AMA PLANS SECOND LEGAL CONFERENCE MAY 9-10, 1958

Legal problems currently facing individual physicians and organized medicine will be the primary discussion topics at the second meeting of state and county medical society executive secretaries and attorneys May 9-10 at the Drake Hotel, Chicago. Before the final agenda can be set up, the AMA Law Department hopes that medical societies will send in their suggestions on specific legal subjects that would be of the most interest to them. The first such meeting—also sponsored by the Law Department—was held in April, 1956.

Medical Library Association
57th Annual Meeting
Hotel Kohler, Rochester, Minnesota
June 2-6, 1958

The theme of this convention will be "Advances in Medical Library Practice." A series of preconvention courses will be held on Saturday, May 31.

Arrangements are being made for pre-and post convention tours. All medical librarians are cordially invited to attend.

American College of Surgeons
1958 Sectional Meeting
Stockholm, Sweden
July 2-7, 1958

See "Secretary's Office" this issue
for additional list

45 Medical Schools Teach Disaster Medicine

Forty-five American medical schools are now participating in a special program dealing with the problems of military and disaster medicine.

The program, Medical Education for National Defense (MEND), was started in 1952 with five pilot schools. It has steadily expanded and now includes more than 14,000 medical students in 45 schools. The program has had a far more enthusiastic reception in the medical schools than was expected.

It is serving a very real need: that of preparing medical students for military service and for meeting the medical needs in a disaster. However, it may face elimination within the next year because of the economy wave now being carried out in military establishments.

The cost of the program has been most reasonable, averaging $10,000 per school per year, or about $30.00 per student. Last year, the total cost, including the operation of a coordinator's office in Washington, was $325,000 for 35 schools.

It is difficult to see how a more economical program could be devised to meet what is surely a real need. It may be very difficult to do a similar job at a later date, and in the event of sudden attack, the lives of many people may depend upon the degree of preparation of physicians in this special field of defense medicine.

The program is carried out in medical schools under the supervision of the individual school in whatever manner the faculty sees fit. Annually, MEND sponsors a series of symposiums at federal medical installations. It also conducts a tour for deans and coordinators of MEND-affiliated schools, designed to introduce them to current problems and trends in the federal services.

Activities in the medical schools include special lectures, conferences, and demonstrations in surgery of trauma, war wounds, radiobiology, defense measures of chemical and biological warfare, aviation medicine, and various other medical civil defense problems.

MEND is a function of the MEND program subcommittee of the Association of American Medical Colleges. It is endorsed by the A.M.A.'s Council on National Defense and Council on Medical Education and Hospitals, and by medical officials of the Department of Defense, Army, Navy, Air Force, Public Health Service, and Federal Civil Defense Administration.

Connecticut State Medical Journal

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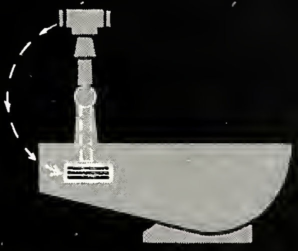

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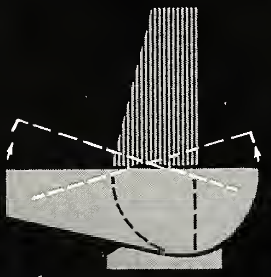

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AROUND THE STATE

Connecticut Regional Blood Program

Connecticut, as you well know, is one of the faster growing States in the Union and the fastest growing State in New England. This poses a problem of increased collections of blood in the Connecticut Blood Program taking care, as it does, of the total needs of Connecticut hospitals.

The use of blood in Connecticut is more extensive than that in Massachusetts, and during the past four years it is interesting to note that the use of blood per occupied bed has decreased at the rate of approximately 2.0 per cent annually, while the average daily census of the hospitals has increased at the rate of 3.1 per cent. This decreased usage, due to more careful use of blood by physicians in hospitals, has been helpful in maintaining a balance between population, bed census and blood collection. The following table gives the exact figures:

YEAR	AVERAGE DAILY CENSUS	PERCENTAGE INCREASE	BLOOD USED PER OCC. BED	PERCENTAGE DECREASE
1952	5,385		12.3	
1953	5,470	1.6	12.1	1.6
1954	5,635	4.7	12.0	2.4
1955	5,881	9.2	11.6	5.7
1956	6,051	12.4	11.3	8.1

DONORS	NOVEMBER 1957	7/1/57 THRU 11/30/57
Donors accepted	7,325	35,900
Donors rejected	668	3,478
Donors registered	7,993	39,378
BLOOD ISSUED TO HOSPITALS		
To Connecticut Hospitals from Center	6,190	31,362
Blood collected by hospitals	784	2,993
To fractionation stock pile	207	900
To out of state hospitals	83	409
	7,264	35,664
PROCESSING AT CENTER		
Processed into fresh frozen plasma	31	411
Processed into packed cells	1	8
Processed into liquid plasma	449	2,813
	481	3,232
Discarded—unfit and broken	23	169
Grand Total—distribution of blood	7,768	39,065
Blood returned to center for processing into plasma and fractions	462	2,849
BLOOD DERIVATIVES ISSUED TO HOSPITALS		
Irradiated plasma (300 cc)	34	243
Fresh frozen plasma (125 cc)	98	753
Serum albumin (100 cc)	98	488
Immune serum globulin (2 cc)	0	60
Packed red cells	1	8
Fibrinogen	0	0

Fairfield County

The new officers of the Norwalk Medical Society elected for 1958 are Eric G. Norrington, president; Clifford W. Mills, vice president; James J. Griffith, secretary; Ignatius J. Vetter, treasurer.

William Kaufman of Bridgeport, a member of the governing council of the Collegium Internationale Allergologicum, conferred upon Dr. Bela Schick, world famous pediatrician the first honorary fellowship in this medical organization. The presentation was made at a dinner in New York City last November on Dr. Schick's 80th birthday. A Festschrift or birthday volume to honor Dr. Schick is being prepared for publication in the spring as a special issue of the International Archives of Allergy and Applied Immunology. Leading medical teachers, scientists and physicians from the United States and foreign countries are contributing major scientific papers on various aspects of allergy and immunology. Dr. William Kaufman will edit this volume, which will be published by S. Karger of Basel, Switzerland and New York.

Hartford County

Egmont J. Orbach of New Britain delivered a paper on "Has the Injection Treatment of Varicose Veins Become Obsolete?" at the recent A.M.A. Clinical Session in Philadelphia.

Matthew Griswold, Chief of the Cancer and Other Chronic Diseases Division of the State Department of Health, was the recipient of a medal for "distinguished service in cancer control" presented at the annual meeting of the Public Health Cancer Association in Cleveland recently.

Stanley H. Osborn, State commissioner of health, has been honored once more. This time it is the

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Around the State (Continued)

C.E.A. Winslow Award presented by the Connecticut Public Health Association in recognition of his long service to public health in Connecticut.

Martha L. Clifford, chief of Community Health Services, State Department of Health, participated in a panel discussion on school health programs at the National Conference on Physicians and Schools held in Chicago in October and November, 1956.

George Hurwitz of Hartford addressed the recent semi-annual meeting of the Connecticut State Allergy Society on "Cor-Pulmonale."

T. Stewart Hamilton, M.D., executive director of the Hartford Hospital, is the author of an article on the foreign trained physicians which was published in *Hospitals,* August, 1957 and condensed in the issue of *Trustee* for the same month. It refers to the work of the Educational Council for Foreign Medical Graduates.

Three physician appointments have recently been made to the staff of the Blue Hills Clinic in Hartford: Dominic Bizzoco as resident physician, Edward B. Swain as physician-in-charge of the Outpatient Clinic, and John M. Monacella as part-time physician in the Outpatient Clinic.

John S. Lundy, former director of anesthesia at the Mayo Clinic, Rochester, Minnesota, was the principal speaker at the banquet in December of the third scientific assembly of former residents of anesthesiology at Hartford Hospital. Two days previously Dr. Lundy received the 1957 Horace Wells Award presented to him by the Horace Wells Club of Hartford.

Lewis P. James has been elected president of the medical-surgical staff of St. Francis Hospital, Hartford for the coming year. Other officers elected were

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D. Dillon Reidy, president-elect; James Missett, secretary; Edward White, assistant secretary; Timothy L. Curran, treasurer; and Thomas Murphy, chairman of the executive committee.

Martha L. Clifford of Hartford has been named to the Children's Bureau Advisory Committee on the problems attending unwed mothers and babies placed for adoption.

Litchfield County

Thomas J. Danaher, past president of the State Medical Society and one of its delegates to the American Medical Association, has been re-elected president of the Torrington Y.M.C.A.

Middlesex County

Christie McLeod was at Oak Ridge, Tennessee in November for additional training in the use of radioisotopes.

Norman Gardner attended the clinical session of the A.M.A. at Philadelphia. At the same time Andrew Turano was in Philadelphia to attend the meeting of the Committee on Perinatal Care of the A.M.A.

Philip Schwartz attended the annual meeting of the American Academy of Dermatology and Syphilology in Chicago.

New Haven County

Frank D. Gray, Jr. of Woodbridge, associate professor of internal medicine at Yale University School of Medicine, has received a promotion in the U.S. Army Medical Corps to the rank of colonel. Colonel Gray is division surgeon of the 43rd Infantry Division, Connecticut National Guard.

Mariano L. Riccitelli of New Haven has been appointed governor for Connecticut in the American College of Cardiology.

Charles C. Wilson, professor of education and public health at Yale, was chairman of a group which discussed "Special Health Problems in Athletics" at the recent National Conference on Physicians and Schools held in Chicago. At the same conference Dr. Wilson spoke on "A Decade of Progress Toward Fitness."

At the semiannual meeting of the Connecticut State Allergy Society held in Hartford on November 14, 1957 Joseph Weiner of New Haven was elected president, Maurice Hillman of New Haven, vice president and Marvin Mogil of New Haven, secretary-treasurer.

John R. Paul, professor of preventive medicine at Yale University School of Medicine, has been appointed to the National Health Institute's Board on Infectious Diseases.

Morris A. Wessel of New Haven has been appointed to the Children's Bureau Advisory Committee on the problems attending unwed mothers and babies placed for adoption.

John H. Bumstead Memorial at Yale Medical Library

A memorial book fund has been established at the Yale Medical Library as a memorial to the late Dr. John H. Bumstead. Dr. Bumstead was deeply interested in the Medical Library and served for a time on the Board of Trustees of the Library Associates. Friends who wish to augment the usefulness of this memorial are invited to send contributions to Dr. Herbert Thoms care of the Yale Medical Library. Checks may be made out to Yale University.

Windham County

Kenneth K. Kinney of Mansfield Center died in the Windham Community Hospital on November 27 at the age of 59. Dr. Kinney was radiologist at that hospital as well as at the Mansfield State Training School and Hospital and was a past president of the New England Roentgen Ray Society.

NEW BOOKS IN REVIEW

MODERN PERINATAL CARE. By Leslie V. Dill, M.D., F.A.C.S., Diplomate of the American Board of Obstetrics and Gynecology; Associate Clinical Professor, Obstetrics and Gynecology, Georgetown University School of Medicine; Consultant, Obstetrics and Gynecology, Army Medical School and Walter Reed General Hospital; Staff Member, Obstetrics and Gynecology, Providence Hospital, Washington, D. C. *New York: Appleton-Century-Crofts, Inc.* 1957. 309 pp. $7.50.

Reviewed by STANLEY B. WELD

The author has written his own preface to this book in which he calls attention to the great changes which have transpired since World War II in obstetrical practice and to the many factors affecting modern perinatal care. This volume is well laid out and covers practically every phase

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and condition which one could think of affecting the antepartum and the postpartum woman.

Several of the chapters have been written in whole or in part by others than the author of the book. "The Practice of Obstetrics and the Law" and "The Ethics of the Catholic Church as They Pertain to Obstetrics" are valuable additions to the text. The book is up to date with an exceptionally good discussion on "Nutrition and Pregnancy" and another very good one on "Abortion." The discussion of "Toxemias of Pregnancy" is thorough and warrants careful perusal by all who practice obstetrics.

Each chapter contains a fairly long list of references found at the end of the chapter. The book is bound well, printed conservatively, and affords one of the best guides for good modern perinatal care that has come off the press during the past year.

WILLIAM HARVEY, HIS LIFE AND TIMES: HIS DISCOVERIES: HIS METHODS. By Louis Chavois. New York Philosophical Library. 1957. 271 pp. $7.50.

Reviewed by STANLEY B. WELD

This latest account of that great physician, William Harvey, is written by a distinguished French physician and medical historian. The book shows the result of careful investigative study of all information about William Harvey which is to be found today. Arranged in a different manner from the usual biography, it begins the story with a picture of Harvey in the prime of life and just prior to the publication of his immortal "Treatise".

William Harvey's life should afford the reader considerable interest. He occupied at St. Bartholomew's Hospital in London the position of chief and as such was responsible for both medicine and surgery. Those were the days when dissection of the human body was permitted on but three or four days during the year. His "Treatise" which set forth the belief, new at that time, that the blood circulates continuously through the body, was finished just in time to appear at the great International Fair and, what is most unusual, was published "at the expense of Wilhelm Fitzer," the printer, at the latter's own suggestion.

William Harvey's early days were spent in Folkestone and Canterbury. From there he went to Cambridge to study for seven years, then on to Padua, Italy. Back in London, still a young man at 26, he was admitted as a Fellow of the College of Physicians at 29 and two years later became physician at St. Bartholomew's. From then on his life was occupied with teaching, caring for the sick, and pursuing experiments leading to his great discovery. He became the personal friend of the King, receiving the appointment as Physician in Ordinary. He was an expert gynecologist and was well versed in practical midwifery.

One cannot read this interesting account of William Harvey without experiencing enthusiasm for one who contributed so much to our modern knowledge of the physiology of the circulation. True, he believed the vena cava to be the starting point of the circulation and also thought that the blood carried to the organs of the body "heat" and "vital spirit," returning cooled and deprived of the "vital spirit." The author's analogy of the stages of the blood's progress with an engine is interesting.

The book is written with considerable charm. It holds the reader's interest, is full of imagination, sometimes almost too much. The author properly evaluates the preliminary forecasting of the circulation of the blood by Servetus, Colombo and Caesalpinus but goes on to show that their work does not detract from the major glory which belongs to Harvey.

METHODOLOGY OF THE STUDY OF AGEING. Volume 3. CIBA Foundation Colloquia on Ageing. *Edited by G. E. W. Wolstenholme,* O.B.E., M.A., M.B., B.CH. and *Cecilia M. O'Connor,* B.SC. *Boston, Massachusetts: Little, Brown and Company.* 1957. 202 pp. $6.50.

Reviewed by Edward Nichols

As the title implies, this little volume deals with the consideration of the accuracy and potential value of various methods employed in the study of ageing. A variety of methods, including the study of biological phenomenon, reaction patterns, the influence of nutrition, comparative data in ageing processes in animals, the influence of genetic patterns and finally the study of intelligence and emotion in ageing are covered in some eleven papers. This colloquium represents the effort and interest of twenty-eight top-drawer scientists selected from among the various investigators in this field both in this country and abroad. The scope and atmosphere of the presentation is international. The value of the very ample and free discussions of the various papers is greatly enhanced by an obvious minimum of editing. This volume would certainly be of great interest to individual investigators in this field of study. Other minds with a philosophical bent, particularly those attracted to speculation in the field of science will find this volume not only stimulating but beguiling as well, to wit, the concluding remark by Dr. C. H. Best of Toronto in discussing a paper on physiological approach in the study of ageing: "We need superb clinicians for tadpoles and other lower organisms. It is, of course, extremely difficult to decide even in human patients whether or not premature ageing is complicated due to infections or other definite pathological processes."

INTRODUCTION TO ANESTHESIA. The Principles of Safe Practice. By Robert D. Dripps, M.D.; *James E. Eckenhoff,* M.D.; and *Leroy D. Vandam,* M.D. *Philadelphia: W. B. Saunders Company.* 1957. 266 pp. $4.50.

Reviewed by David M. Little

This is one of the most satisfying books on anesthesia that has been published within recent years. It is the direct outgrowth of a smaller volume, entitled Organization and Procedures, employed as an introductory guide within the Department of Anesthesiology of the Hospital of the University of Pennsylvania. The authors have described the scope of the book in the following manner: "Much of the teaching of anesthesia is by word of mouth. Beginners seek to learn countless details that cannot be found in general texts. This is the lore of anesthesia that must be passed from individual to individual. A good bit of the material gathered in this volume might be classified as being in this rather shadowy area . . ." Not only has this lore been committed to paper in a remarkably able fashion; but, even more importantly, it has been given a sound, scientific basis and a practical, clinical explanation.

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The volume is divided into five sections. "The Preanesthetic Period" contains discussions of preanesthetic rounds, the evaluation of the physical status of the patient, the factors influencing the choice of anesthesia, and guides to preanesthetic medication. The section entitled The Day of Anesthesia is composed of chapters on essential immediate preoperative measures, elements of an anesthetic machine, compressed gases, the measurement of blood pressure, fundamentals of inhalation anesthesia, the inhalation anesthetics, "open drop" anesthesia, fundamentals of muscle relaxants, intubation of the trachea, intravenous barbiturate anesthesia, spinal anesthesia, and fundamentals of local anesthesia. The third section, During Operation, considers anesthetic records, methods for determining the depth of general anesthesia, fire and explosion hazards, arterial hypotension during anesthesia, unusual complications of anesthesia, and surgeon-anesthetist relationships. The Postoperative Period contains chapters on the hazards of the immediate postoperative period, the recovery room, the treatment of immediate postoperative pain and excitement, and cleaning and sterilization of equipment used for inhalation anesthesia. The final section, entitled Special Topics, contains a variety of miscellaneous subjects, including cardiac resuscitation, principles of pediatric anesthesia, anesthesia for ambulatory patients, obstetric anesthesia and infant resuscitation, the management of narcotic poisoning, the fundamentals of inhalation therapy, death reports, and instruction in anesthesia.

There has long been a need for an introductory volume for the beginner striving to learn anesthesia, and it seems almost certain that this book is destined to become one of the standard texts for the medical student, intern, resident in anesthesiology, and physician devoting part-time effort to the administration of anesthetics. It should be mandatory reading for all those engaged in the teaching of anesthesia. And many a practicing anesthesiologist will find in this small volume the reasons behind many of his own subconscious actions in the conduct of anesthesia—reasons vaguely identified in the past, but now spelled out clearly in black and white as the lore of anesthesia is translated into practical facts.

The
CONNECTICUT STATE MEDICAL JOURNAL

Vol. XXII FEBRUARY, 1958 No. 2

The Journal is pleased to offer to its
readers this authentic picture of the Asian
influenza epidemic with
particular emphasis on the experience in Connecticut.

THE 1957 ASIAN INFLUENZA EPIDEMIC

James C. Hart, m.d., *Hartford*

The Author. *Director of Preventable Diseases, Connecticut State Department of Health*

In the April 17, 1957 issue of *The New York Times* a short news report from the Hong Kong correspondent noted that "thousands of cases of influenza have been reported here during the past few days in the 'worst epidemic outbreak in years', according to health authorities". Thus was brought to light an epidemic of influenza which had been raging in Central China during February and March and eventually spread over the world in pandemic fashion. The infection had been brought to Hong Kong by some of the 700,000 refugees from Communist China now living under overcrowded conditions in that city of 2,500,000 people. It was estimated that 250,000 persons or 10 per cent of the population were receiving treatment.

In Washington the news article was noted by members of the staff at the Walter Reed Army Institute of Research who, alert to the possibilities of worldwide spread, cabled the Army's 406th Medical General Laboratory in Zama, Japan requesting investigation of the outbreak and recovery of the virus.

A sample of the influenza virus recovered from victims of the illness in the Far East was received in Washington on May 13. Eight days later the staff at Walter Reed reported the identification of this virus as a new variant strain of Type A influenza against which there was a great deficiency of antibody in the sera of a sample of United States military personnel.

The significance of the new variant influenza was quickly realized and the virus was furnished to the National Institutes of Health for transmittal to the six licensed manufacturers for large scale production of vaccine. The Surgeon General of the Public Health Service predicted there would be no major outbreaks of Asian influenza in this country before fall but that sporadic cases and small outbreaks might be expected to occur in the United States during the summer. In late July the Public Health Service, the American Medical Association and the Association of State and Territorial Health Officers initiated an extensive educational and pro-

SUMMARY

Washington received news of the 1957 Asian influenza outbreak in time to secure a sample of the virus. Large scale production of vaccine to prevent the disease then followed. Connecticut set up a program in preparation for the epidemic, making specific recommendations to the physicians in the State. Intradermal administration of the vaccine was adopted in most instances as the optimum method. The State Department of Health carried out an information service for the benefit of both physicians and public. Medical associations and hospitals cooperated. The incidence among adults in Connecticut was much lower than among children. The mortality was also low.

motional campaign to encourage maximum use of influenza vaccine in the population on a voluntary basis.

CONNECTICUT PREPARES FOR THE EPIDEMIC

When first information about the possible epidemic was received from the Public Health Service in early June all directors of health and physicians were immediately notified. After the first sporadic cases of influenza were detected in July and the Surgeon General predicted the definite likelihood that an epidemic would occur in the fall or early winter, an Advisory Committee on Influenza to the State Department of Health was formed. Members of the Committee included representatives from the Connecticut State Medical Society, Connecticut Hospital Association, Connecticut State Nurses Association, Section of Preventive Medicine of Yale University School of Medicine, the State Office of Civil Defense, local directors of health, and the wholesale and retail drug industry.

At the August 14, 1957 meeting of this Advisory Committee the following recommendations were made:

1. That the Connecticut State Department of Health be designated as a central source of information on influenza disseminated within the State.
2. That the general use of influenza vaccine when it becomes available be advocated and:
    a. that it be advised that 0.1 cc. intradermally be used unless information is received that such dosage is ineffective;
    b. that no system of priorities be set up unless later information shows some groups more susceptible than others;
    c. that physicians be urged to immunize patients in their own offices with proper screening of the patients against possible allergic reactions;
    d. that the vaccine be distributed and used through usual drug and medical channels.
3. That the various representatives of organizations attending this conference should within their organizations meet and prepare for a possible epidemic.

On September 13, 1957 the Committee approved a four-point program of surveillance, investigation, vaccination and public information for the State Department of Health.

SURVEILLANCE

Advice and consultation on diagnostic and reporting problems were offered to local directors of health by members of the State Department of Health. The department of laboratories carried out diagnostic blood tests for influenza and specimens of throat washings were forwarded for virus isolation to the Federal Communicable Disease Center Virus Laboratory in Montgomery, Alabama.

To detect cases and outbreaks of influenza physicians were asked to send in throat washings and paired blood sera on their suspected cases of influenza and report them to the health department Directors of health were requested to report absenteeism from schools and industry. Influenza-associated deaths were investigated by a member of the local or State Department of Health and the total number of deaths occurring weekly in the four largest cities of the State were tabulated and compared to those of previous years. By these various reports the course and severity of the epidemic could be traced.

INVESTIGATION

A study of the reactions and antibody response to vaccine was conducted by the health department's Division of Health Services for State Employees and the Laboratory Services. It was found that the immediate reactions to the vaccine both by the intradermal and subcutaneous methods were minimal. The antibody response to the monovalen vaccine was disappointingly low when measured by the hemagglutination inhibition test which had been recommended for use in testing antibody levels. Some time later information from the Public Health Service showed that although the hemagglutination inhibition test is more specific, the complement fixation test is the method of choice for routine serologic diagnosis because of its sensitivity A comparison of the intracutaneous vs. subcutaneous methods showed that 0.1 cc. intracutaneously gave 75 to 80 per cent of the antibody response a obtained with 1.0 cc. subcutaneously.

For more information on the clinical symptom and course of the influenza cases, a new case-record form was created and pertinent information wa obtained on all early reported cases, those with laboratory confirmation, and on influenza-associated deaths. Analysis of these records has not ye been completed.

VACCINATION PROGRAM

The only effective preventive measure against influenza is vaccination and the six manufacturers made a valiant effort to supply the country with vaccine. The demand exceeded the supply however, although a substantial amount had been released by mid-October when the epidemic was at its peak. Distribution of vaccine through usual drug channels on a voluntary basis was agreed to by the Public Health Service, the American Medical Association, and the drug manufacturers. Each state was allocated vaccine on a population basis and Connecticut received 1.3 per cent of all vaccine released for civilian use.

The State Department of Health after consulting with the Committee on Public Health of the State Medical Society and with the Advisory Committee on Influenza made several recommendations to physicians regarding the use of influenza vaccine.

Vaccination was recommended for all persons except those under three months of age with first priority to those who care for the sick, those individuals necessary to maintain basic community services and those who are chronically ill.

SUBCUTANEOUS OR INTRACUTANEOUS

The dosage and method of administration of vaccine was considered carefully in view of the shortage of vaccine. After much discussion the department recommended the intradermal administration of 0.1 cc. dose of vaccine as a satisfactory alternate to the usually recommended dose of 1.0 cc. subcutaneously.

Although eleven years of experience with the intradermal method of influenza vaccination had given Connecticut physicians confidence in the method, it was recognized that the new variant virus vaccine might not give the same antibody response as older vaccines because the people had had no previous natural experience with the strain.

Encouragement in the use of the intradermal method came from Dr. Maurice Hilleman of the Walter Reed Army Institute of Research who reported on his use of the new vaccine before the State and Territorial Health Officers Conference on August 27, 1957. Dr. Hilleman was quoted as follows:

> "Of special interest was the response to vaccine given intradermally. The response to the 0.1 cc. intracutaneous dose, containing only 16 units of virus, was almost as good as to the 10 times greater amount (160 units) given subcutaneously. This finding may be of significance in situations where shortage of vaccine necessitates 'stretching' the supply and would permit vaccination of 10 times as many persons with a given amount of vaccine as would be achieved by the usual 1 cc. dose."

Some of the reasons given by members of the Armed Forces for not using the intradermal method are the difficulty in administration of vaccine by that method and the fact that influenza vaccine given intradermally had never been tested under field conditions of an epidemic to prove that it was protective. The Navy was the only service of the Armed Forces which used the vaccine intradermally. It had first tested the method twelve years ago. The nonoperative personnel of the Navy received two simultaneous inoculations of 0.1 cc. intradermally.

The Council of the Connecticut State Medical Society acting on the recommendation of its Public Health Committee had the Executive Secretary send to all members of the Society a copy of a resolution recommending the intradermal method as a satisfactory alternate. The Committee on Influenza of the American Medical Association subsequently followed suit.

In Connecticut most of the inoculations of influenza were given in private physicians' offices or in industrial-type programs. Very few public and school clinics were conducted. No vaccine was distributed by the federal or state government as had been the case with poliomyelitis vaccine.

The vast majority of the vaccine used in Connecticut was given intradermally and by the time the epidemic struck full force in October, it was estimated that almost a million people in the State had been vaccinated.

PUBLIC ALERTED AND KEPT INFORMED

The epidemic of Asian influenza was the top medical news story of 1957. With the possible exception of poliomyelitis, there was no epidemic disease which has been more explained to the public than influenza. From early June until December national, state, and local news articles were frequent and the public was kept informed about the disease. Information on the symptoms of this new type of influenza, the precautions to take to prevent it, and what to do when people became ill, was disseminated widely through newspapers, radio, and television. Vaccination was recommended and it was pointed out that although the disease was mild, its extent might cause unprecedented disruption of community services.

State and local departments of health issued bulletins, posters, and pamphlets. The State Department of Health provided and distributed 150,000 leaflets about Asian influenza. The Bureau of Public Health Education furnished radio and television stations in the State with slides, transcriptions, films, and public service spot announcements. Several live television programs of the department and the Connecticut Television Committee for Health Education explained the advisability of vaccination and demonstrated the care of sick people in the home.

NATIONAL, STATE AND COUNTY MEDICAL SOCIETIES ACTIVE

The American Medical Association set up a special Committee on Influenza to promote a nationwide preparedness program to combat a possible outbreak of Asian influenza. Information was sent out by this Committee to inform all physicians, through state and county medical societies, how to deal with an epidemic. This information was published weekly in the *Journal of the American Medical Association,* and news releases and bulletins were sent out to state and county medical associations. In Connecticut the physicians were kept informed by the State office. The chairman of the Public Health Committee of the State Society served on the Advisory Committee on Influenza to the State Department of Health. At the September 13, 1957 meeting of the Public Health Committee the entire problem of the threatening epidemic was considered.

The proposed program by the State Department of Health was approved, and a resolution advocating widespread use of the vaccine and the intradermal administration of vaccine as an alternate method was passed and submitted to the Council of the State Society. The resolution was passed by the Council, and sent out to every physician member of the Society.

HOSPITALS ACTIVE

Under the leadership of the Connecticut Hospital Association, the hospitals of the State prepared for an emergency. Members of the administrative and medical staffs were offered vaccine and preparations were made to provide emergency medical care for larger numbers of patients. Plans were also made for curtailment of elective surgery and restriction of visitors during the outbreak.

PANDEMIC

The epidemic which had begun in China, in the early spring spread to other Far Eastern countries during May. In June the influenza spread from Southeast Asia into Southwest Asia and the Middle East. Cases appeared in Europe and the United States, first among Navy personnel at Newport, Rhode Island, and shortly thereafter at military installations in California. Outbreaks of the disease occurred at a meeting of young people at Davis, California, and Grinnell, Iowa, and later at the Boy Scout Jamboree at Valley Forge, Pennsylvania. The return home of the young people from these three meetings during June and July contributed to the seeding of the virus across the country.

Influenza Surveillance Reports from the Communicable Disease Center show that the general epidemic trend in the United States occurred during the latter part of September and reached a peak in October. Statistics obtained on respiratory diseases in the United States as tabulated by the U.S. National Health Survey show that the number of new cases involving one or more days of bed disability because of respiratory diseases began about the middle of September, and reached a peak of over 12,000,000 cases during the week ending October 19. The peak as indicated by new county outbreaks of influenza likewise occurred during the same week.

The epidemic as measured by the excess pneumonia and influenza mortality reached a peak during the week ending November 9. This three week delay in mortality peak is possibly related to late involvement of old-age and high-risk groups during an epidemic. The highest point of industrial absenteeism occurred the week ending October 26. Reports from the 36 largest cities of the United States (all outside of Connecticut) indicate that they all experienced industrial absenteeism varying from 5.5 to 13 per cent at one time or another.

THE CONNECTICUT EPIDEMIC

Sporadic cases of influenza confirmed by laboratory tests occurred during July, August, and early

September. The cases were widely distributed throughout the State and showed little evidence of spread within a family.

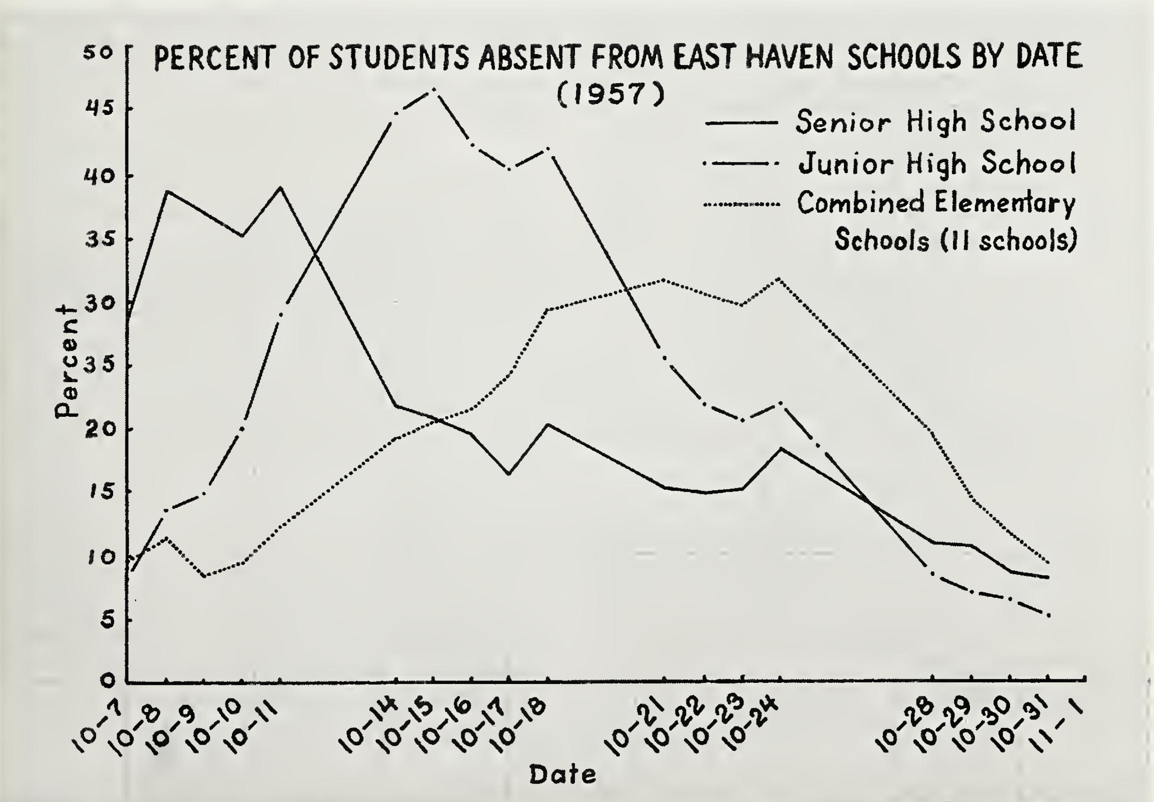
The first known outbreak of influenza in Connecticut occurred in Voluntown on the eastern border of the State and was first noted September 19, 1957 when 50 of the 170 pupils in the elementary schools were absent with respiratory symptoms. The disease soon spread to neighboring Jewett City and other parts of Griswold. On September 30, influenza-like disease was reported at the Norwich Free Academy. Three days later over 900 Academy students were absent, and it was estimated there were about 2,000 cases in Norwich. On October 3, absenteeism because of influenza was reported from a high school in New Haven. At the same time in Willimantic 225 pupils of 1,600 total enrollment were absent from the high school. The epidemic soon spread across the State to Bridgeport, Stamford, and through the Naugatuck Valley. Within the next two weeks, influenza was reported from every county in the State and almost every town.

During the first week in October, local directors of health were asked to report by numbers of cases as determined by absenteeism from schools, industry, and business as well as those reported by physicians. The number of cases rose from 12,000 the week ending October 12 to 34,000 the following week, October 19, and 31,000 October 26. A total of 92,676 cases was reported to the State Department of Health in October and 23,549 in November. The year's figure of 116,641 is the largest number of any reportable disease ever recorded in any one year in Connecticut.

PATTERN OF SPREAD

The vast majority of cases reported were in school children of all ages. The most susceptible were teenagers, and with few exceptions high schools were the first to become involved. From 30 to 50 per cent of the high school age groups were absent—most at one time. Chart 1 shows how the epidemic influenced the absentee rate in the public schools of one town. In this instance the peak of absenteeism occurred in the high school six days before that of the junior high which was six days

Chart I



before the peak in the elementary schools. Private schools and colleges were likewise affected at the same time. The number of adults who became ill was much smaller and these usually followed the children by one to two weeks. The absence of more influenza infection among adults was not easily explained. Even in schools, with nearly half the children out with respiratory disease, most of the teachers were unaffected. Only two schools were known to close because of the epidemic.

Regular surveys were made in Hartford, New Haven, and other towns among business firms and industrial plants without finding any significant absenteeism because of influenza. One of the explanations for the relatively low incidence of influenza reported in older people may be that people over 30 years of age frequently have a composite of antibodies built up by repeated exposure to influenza viruses over the years. In addition, a large percentage of the adult population had received an inoculation of influenza vaccine by the time the epidemic broke. Even though the potency of the vaccine was not high, the booster effect may have been sufficient to provide protection.

MORTALITY FROM INFLUENZA

The deaths specifically associated with influenza were relatively few. Only 14 influenza-associated deaths and 111 deaths from pneumonia were recorded in Connecticut in October, the peak month.

Examination of Table I emphasizes the fact that the deaths in the State in September, October, and November showed an increase over previous years. In addition to increases in influenza and pneumonia deaths, a rise in number was noted for cardiovascular renal deaths. The high figure of 2,164 deaths from all causes in October, the peak influenza month, is less than the 2,164 deaths which were recorded in December, 1955 when no epidemic was noted. Chart II shows the 1957 mortality curve of the four largest cities of Connecticut compared to the median of the three previous years. The peak of deaths was during the weeks ending October 26 and November 2, following by one week the reported cases.

CLINICAL PICTURE AND COMPLICATIONS

The clinical picture of influenza was that of a mild illness characterized by malaise, generalized aches and pains, chills, fever, coryza and coughing lasting three to five days followed by extreme weakness. The attack rate in the teenage group varied between 20 and 50 per cent; in adults it was only about 1 to 2 per cent.

Table I

Deaths in Connecticut During 1957 Influenza Epidemic

	ALL CAUSES		SPECIFIC CAUSES 1957			
MONTH	1954-56 AVERAGE	1957	INFLUENZA	PNEUMONIA	C.V.R.*	CANCER
July	1,684	1,701	1	41	938	298
August	1,584	1,663	....	36	890	349
September	1,621	1,806	2	40	998	343
October	1,730	2,011	14	111	1,068	345
November	1,742	1,980	10	81	1,095	354

* Cardio-vascular-renal

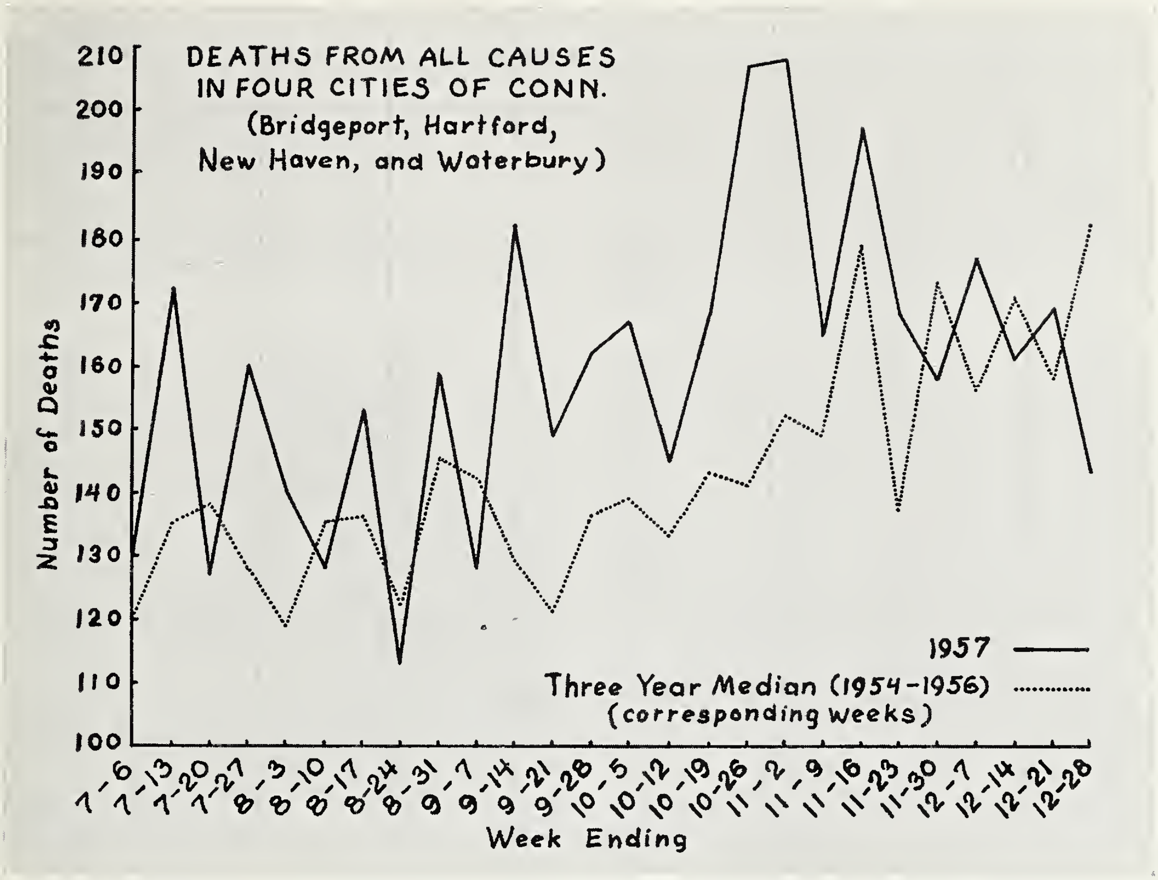
Many patients had only mild symptoms of a common cold including a few who had significant laboratory findings. Of 440 paired blood specimens submitted to the State laboratory during September, October, November and December, 128 or 29 per cent showed significant rises in antibody titre for the Asian strain. The most serious complications were caused by secondary invaders of the respiratory tract. The few deaths among young adults and children were caused by influenza itself or an overwhelming staphylococcus infection of the lungs. One death in a 13 year old boy was associated with symptoms of encephalitis. Two other attacks in young people associated with symptoms of encephalitis did not end fatally.

CONCLUSIONS

The 1957 Asian influenza pandemic was the first attempt to prevent the disease by the production of a vaccine on a large scale while the spread of disease was in progress. The Armed Services and Public Health Service are to be commended for the quick detection of the virus and assembling of all medical, drug, and public health forces for a nationwide attack on the problem. The manufacturers performed a remarkable task in producing a vaccine in substantial amounts prior to the onset of the epidemic in this country.

In Connecticut there was close cooperation between medical, hospital, nursing, drug and public health workers to prevent the disease and to make preparations for caring for the sick in an effort to soften the impact of the epidemic. In this respect the efforts were successful. Essential community services were not disrupted. Schools did not close Morbidity among adults was low. Mortality caused

Chart II



by influenza was increased but in no way compared to the pandemic of 1918.

In this epidemic for the first time the intradermal method of vaccination against influenza was used extensively throughout the United States. Many studies are being carried out on the effectiveness of this method, and much valuable information will be obtained. It is difficult to evaluate the effectiveness of vaccine in this State because no control studies were made. The widespread use of the intradermal method permitted many more people to be given vaccine than could have otherwise been done with the 1.0 cc. dose. The fact that absenteeism in industry and business was not prevalent in Connecticut, although it was reported in all the large cities of this country outside of Connecticut, may be an indication that the vaccination program was effective. Only one death following influenza was known to have occurred in a vaccinated person —a 27 year old Hartford woman.

It is not likely that many similar opportunities to prepare vaccine will be available during a pandemic because the disease may appear first in this country or at different times than occurred in 1957. All new influenza polyvalent vaccines will contain the Asian variant strain and should be given as an annual preventive measure.

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RESPIRATORY DISTRESS SYNDROME OF THE NEWBORN

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SUMMARY

Infants born prematurely, by hysterotomy, or of diabetic mothers are particularly susceptible to hyaline membrane disease wherein the development of membranes in the alveolar ducts within a few hours after birth obstructs alveolar ventilation and resorption atelectasis results. The reduced gas exchange, and consequent hypoxia and hypercapnia, brings about maximal respiratory stimulation, recognized by an increased respiratory rate, retraction of the thorax during the inspiratory phase of respiration, and a diffuse increase in density of the lungs and visualization of the peripheral bronchial tree by x-ray. Therapy consists of providing an oxygen-enriched, maximally humid environment, maintaining a clear airway, postural drainage, avoiding oral feedings, and digitalization. Antibiotics are administered prophylactically, because although at least half of these infants slowly recover, those who do not succumb to the hypoxia, hypercapnia, and exhaustion may die of a complicating pneumonitis.

THE importance of pulmonary pathology as a cause of death in the newborn infant has been stressed by many authors. In Potter's[1] large series forty per cent of the liveborn premature infants who came to autopsy had hyaline membranes in their lungs. Others point out an even higher incidence of all forms of respiratory pathology.

Although the normal respiratory pattern of the newborn compares unfavorably with his elders, Potter[1] has indicated that when the average fetus has achieved 1000 grams of body weight he possesses pulmonary apparatus which is potentially adequate to maintain oxygenation. Indeed, inadequate respiratory activity in an infant over this weight is usually due to extrapulmonary pathology, most often cerebral. Intrapulmonary pathological states, however, most often result in increased respiratory effort, and these conditions have been grouped under the general classification of "Respiratory Distress Syndrome."

Of primary importance in the practical management of newborn infants is the definition of criteria whereby respiratory distress might be anticipated. Potter[1] among others has indicated the predilection of the premature for hyaline membrane disease, the major cause of the respiratory distress syndrome. Peterson and Pendleton[2] point out the frequency of fetal aspiration, another cause of respiratory distress, in postmature infants. Gellis *et al.*[3] have called attention to aspiration in the infants of diabetic mothers.

RESPIRATORY RATE

One's suspicions having been raised on statistical grounds, how may we evaluate the individual infant? Miller and Conklin[4] found some correlation between the respiratory rate and the short-term prognosis of premature infants. They noted three distinct patterns. I. Those infants who at birth had a normal respiratory rate of about 40 with little fluctuation during the next four days. These infants all did well. II. Those who had an initial rate of 60 or more, but whose rate soon dropped to normal. They also did well. III. Those who had a near normal rate at birth but during the first 36 hours it became elevated to over 60, to return to normal only after more than four days. This group contained the infants with respiratory distress and all of the fatal cases. Interestingly, Haddad *et al.*[5] described an elevated respiratory rate in prematures, full-term babies delivered by section, and infants of diabetic mothers.

In addition to a rapid respiratory rate, the other major feature of respiratory distress is retraction

Presented on April 3, 1957 at Berlin, Connecticut on a program on Recent Changes in Maternity and Infant Care of the thorax during inspiration. Silverman and Andersen[6] have described its features and a useful method of grading its severity.

The best physiological description of this syndrome is that of Cook *et al.*[7] They found an increase in respiratory rate, minute volume, CO_2 tension, respiratory tree dead space, fluctuation of intrathoracic pressure, and work performed by the infant. The latter was so great that exhaustion is considered a major factor in the failure of some of these infants to survive. They also noted a decrease in vital capacity and pulmonary elasticity (compliance). While they did not find a significant decrease in tidal volume, this was noted in studies by Miller and Smull[8].

The several conditions which bring about respiratory distress syndrome may be distinguished roentgenographically.[2] *Incomplete expansion of the lungs* is manifested by the appearance of large atelectatic segments, an accompanying mediastinal shift, and a bell-shaped appearance of the thorax. *Hyaline membrane disease* is characterized by a generalized increase in the density of the lungs, and because of the consequent increase in contrast between air and lung parenchyma, the presence of an outline of the bronchial tree out to the periphery. It should be pointed out here that the lungs are of normal size, the thoracic outline being biconvex rather than bell-shaped as described in the previous condition. The picture of *fetal aspiration* is quite a varied one with focal irregularities of aeration, including some areas of emphysema.

HYALINE MEMBRANE DISEASE

Because of the general interest now manifest in the problem of hyaline membrane disease, and because of time limitations, the other conditions will be excluded from discussion although it might be pointed out that their therapy, except for certain specific considerations, is as similar to that of hyaline membrane disease as is their clinical picture.

As previously stated, statistical studies demonstrate the tendency for hyaline membrane disease to develop in premature infants, in infants delivered by hysterotomy, and in infants of diabetic mothers. Until recently it has been emphasized that these infants appear well initially, but then go on to respiratory distress sometime within the first twelve hours of life. It is now felt that on careful examination many of these infants will have some sign of respiratory distress before leaving the delivery room. As the condition develops these infants are seen to breathe rapidly, to have retraction of the thorax during inspiration, to have alar flaring and an expiratory grunt, to have cyanosis despite their vigorous respiratory efforts, which in turn only serve to weaken them. Death due to anoxia, hypercapnea, and exhaustion may take place within 48 hours after birth; infants with this condition dying later than that usually have a pneumonia which may be the proximate cause of death.[1] Interestingly, this condition is never seen in autopsies of infants who died sooner than one hour after birth.[9] Many of these babies recover, some estimates running as high as 85 per cent[7] although this would seem to be rather optimistic. Recovery takes place by a slow but steady reduction in the degree of distress over several days to a week.

The pathology of hyaline membrane disease is of interest in explaining the clinical picture. The lungs are of normal size, but they are deep purple in color, noncrepitant and sink when placed in water. Microscopically a distinctive triad is noted. *Congestion* of the blood vessels throughout the parenchyma is striking; in some cases blood is also present in the lumen of the bronchial tree. The alveolar ducts and respiratory bronchioles are seen to be lined by eosinophilic *hyaline membranes.* The alveoli distal to the site of the membranes show severe *atelectasis.* We can thus visualize an infant who has developed this condition increasing his respiratory efforts to ventilate the alveoli, but unable to get air through to them because of the obstructing membranes. He thus increases the caliber of the respiratory tree proximal to the obstructive site, while any air remaining distal to the obstruction is absorbed, giving the picture of atelectasis. For this reason this condition is also known as "Resorption Atelectasis".

The most attractive theory explaining the origin of the membranes is that of Stevenson and Lauff.[10] They postulate that fibrinogen-containing material exudes into the alveoli of the infant and that aspirated amniotic fluid, because of its high thromboplastin activity,[11] causes the conversion of the fibrinogen of the infant's alveolar exudate to fibrin, which then forms the membrane. Gitlin and Craig[12] have good immunochemical evidence for the presence of fibrin in these membranes. As to the source of the alveolar exudate, Lendrum[13] has postulated that there is a sudden load placed on the left ventricle at the time of birth which is in excess of the capability of the premature infant's myocardium. Because of this, left heart failure develops and along with it effusion of plasma constituents into the alveoli takes place.

TREATMENT

As with other pathological states, the best treatment is prevention. The reduction of premature births and of delivery by hysterotomy would certainly reduce the size of the group most susceptible to hyaline membrane disease. This is a problem of obstetric management, as is the prevention of fetal anoxia which would bring about a state favoring the development of membranes by reducing myocardial function among other things. Careful resuscitation would minimize anoxia of the newborn as well as reduce amniotic fluid aspiration.

When the syndrome develops the following measures are thought to be of assistance. 1. Oxygen is administered in concentration adequate to prevent cyanosis, preferably not over 40 per cent concentration in order to avoid retrolental fibroplasia; this might be mixed with helium rather than with air to aid in its passage. 2. A *clear airway* should be maintained. The infant should be placed in such a manner as to facilitate drainage, preferably on the side, with the mattress level. 3. The baby's environment should have over 90 per cent relative humidity or mist if for no other reason than to prevent excess insensible water loss, since Silverman and Andersen[6] could demonstrate no advantage therefrom. 4. To prevent further aspiration of vomited gastric contents gastric aspiration should be performed. 5. Similarly, to prevent aspiration episodes the infant should not receive oral feedings; it is impossible for an infant with respiratory distress to feed properly when he is completely involved in a maximum ventilatory effort. 6. Since infants dying after 36 to 48 hours with hyaline membrane disease usually do so because of a complicating pneumonia, antibiotics should be administered prophylactically. We are using penicillin and chloramphenicol at the present time. 7. Impressed by Lendrum's paper (see above) we have been employing digitalis in the therapy of these infants, administering one half of a digitalizing dose (we are using a total dose of 0.035 mg. of digitoxin per kilogram of body weight) when the diagnosis is made. Digitalization is completed within the first 24 hours and maintained until the infant is comfortable. Not enough cases have been studied to come to any conclusions as to the efficacy of digitalis, however, no ill effects have been noted. Actually, evaluation of digitalis therapy could best be done by routine digitalization of susceptible infants, e.g., all premature infants, immediately after birth, with suitable paired controls; such studies are as yet in the contemplative phase in New Haven.

Other forms of treatment have been suggested or tried. Stimulants appear to be of no value and may be harmful to these already maximally stimulated infants. Oxygen administration via gastric tube will provide insufficient oxygenation and will not help to dispose of the accumulating carbon dioxide. Hypothermia by means of drugs or lowering of the environmental temperature does not seem to be a reasonable measure. Any advantage gained from a lowering of the metabolic requirements would seem to be more than offset by the toxic potential of this therapy. Inhalation of detergent mist has not been of help in a controlled study reported by Silverman and Andersen.[14] Inhalations of mist containing enzymes, particularly fibrinolytic material, should theoretically be of some benefit although there are no published controlled studies indicating such. Fixation of the xiphoid process has been recommended as an aid in increasing respiratory efficiency by reducing retraction.[15] One is inclined to think of the retraction, however, as a safety valve for the maximal respiratory effort which the affected infant already manifests, and that, if retraction were to be prevented, the additional negative pressure would only serve to increase the vascular engorgement and perhaps lead to rupture of the already distended respiratory ducts.

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LEYDIG'S CELL TUMOR

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In spite of many investigations, the clinical, endocrinological and histopathological characteristics of masculinizing tumors of the ovary are still unsettled, especially in the so-called Leydig's Tumor. A few cases of this tumor have been reported under the name of sympathicotropic tumor, Leydig's cell tumor, interstitial tumor or masculinovoblastoma of the ovary. All of the cases are characterized by the clinical syndrome of hirsutism, virilism, and the tumor cells are identical to the interstitial cells of the male testes. It has been suggested by many authors that the masculinization is due to the abnormal production of male hormone by the interstitial cells in the ovarian hilus.

In this paper we report two cases of Leydig's cell tumor which show a similar histological picture, but one manifests the characteristics of masculinization and cure by surgical removal of the tumor, and the other is without any clinical syndrome of endocrinological disturbances.

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SUMMARY

Two more cases of Leydig's cell hyperplasia are reported, one with signs of masculinization and the other with complete absence of endocrinological abnormality. The fact that these were accompanied by cysts of different types is not considered significant.

CASE NO. 1

Mrs. M. D., age 51, was admitted to Bridgeport Hospital October 26, 1952 with the chief complaint of indigestion spells. Three times in the past five weeks she had had severe attacks of right upper quadrant and epigastric pain which radiated to the back and was associated with nausea and belching. No jaundice had been noted at any time. She had noted intolerance to fatty foods, cabbage and onions. She had lost ten pounds, from 150 to 140. On questioning, the patient had noticed increased hair on face and both extremities, plus a definite thinning of her arms and legs. The increase of hair began about twelve months ago. Her menses ceased at age 47, four years ago. No previous operation or serious illness noted. She has two normal children, the youngest age 13.

Physical examination showed a well developed, well nourished, somewhat pale, white female with considerable dark hair on her face, both extremities and chest. Both extremities were quite thin compared to the slightly obese abdomen. The breasts were small in size and atrophic, without palpable mass. Blood pressure, 140/80.

SPECIAL EXAMINATIONS

Gynecological: Examination in the lithotomy position revealed the perineal support to be rather poor. The cervix descended easily to the introitus. The uterus was normal in size, in mid position. It measured about 3.5 to 4 inches in depth. In the right adnexal region a large cystic mass could be felt. The cervix and clitoris were not remarkable.

Urological: Slight dilatation of right upper urinary tract above S-1, caused by extraureteral pressure of pelvic tumor. No evidence of adrenal tumor.

Radiolographic: Nonfunctioning gall bladder. No pathological findings in G.I. series. No abnormal density along upper portion of either kidney.

Laboratory: RBC 4,120,000. Hgb. 12.8 grams, 85.3 per cent. WBC 11,400, Polys 67 per cent (seg); Lymphocytes 25 per cent; Monocytes 6 per cent. Prothrombin time above 60 per cent. Absolute eosinophile count 121/cu.mm. Blood glucose tolerance test:

Fasting	101 mg. per cent
½ hour	170
1 hour	188
2 hours	159
3 hours	110

Cephalin Flocculation: 1 plus/48 hours. Cl-103 mEq/L; K-5.9 mEq/L; Na- 145 mEq/L. Urine: Sp. Gr. 1.008; Ph- 5.7; Alb- 0; Sug.- 0; WBC- 0. 17-Ketosteroids excretion- 3.0 mgm. in 24 hours.

OPERATION

At the first operation a gall bladder containing numerous medium sized gall stones was found. The common bile duct was occluded by a large gall stone. At a second operation, two weeks later, a bilateral salpingo-oophorectomy was done. A large cyst of the right ovary was found, also a small cyst of the left ovary.

The pathological specimen consisted of both ovaries and tubes. The large, cystic ovary measured 12.5 x 7.5 cm. (right). This ovary was thin walled and filled with slightly whitish pseudomucinous fluid. The outer surface, as well as the inner surface of this cyst was smooth. Except for a small peritoneal inclusion cyst attached to the left tube, the left tube and ovary were grossly negative.

Microscopical sections through the wall of the large, pseudomucinous cysts revealed a lining of tall columnar vacuolated cells. Beneath this layer, the walls are composed of the usual collagen in which there are numerous nests of typical Leydig cells. The cells are grouped in long, regular strands which follow the curvature of the cyst. The cells are found in nearly all the sections of the cyst wall. They are closely packed and have small, round nuclei with prominent nucleoli. The cytoplasm is abundant and foamy and the cell borders are indistinct. Crystalloids, varying in size and cylindrical in shape are quite numerous. Some are very long and appear to extend from one cell to the next. Others are distinctly within the cytoplasm of one cell. In areas, the nests of cells appear to be pushing in between collagen fibers and there are rare mitoses. Sections of the inclusion cyst are not remarkable.

CASE NO. 2

Mrs. D. L. was admitted to the Bridgeport Hospital with the complaint of hemorrhoids and relaxation of the vaginal canal. She has had hemorrhoids which occasionally bleed, for a long time. Occasionally during the past year she has noted that when she coughed or sneezed, she had slight leakage of urine. Has no vaginal spotting or discharge. No previous operation or serious illness. No weight loss. She has had two children. Menopause passed uneventfully six to eight years ago.

Physical examination revealed a well developed, well nourished white female with no gross external abnormalities.

Gynecological Examination: The uterus was very small and atrophic and in fairly good position. Grade II cystocele, Grade II rectocele and a left ovarian cyst were present.

The operation consisted of an anterior and posterior colporrhaphy, hemorrhoidectomy, supravaginal hysterectomy, bilateral salpingo-oophorectomy which was done on October 1, 1954.

The results of the blood chemistry, hematologic and urine examinations were within the normal ranges.

Positive pathological findings consisted of one ovary which was greatly enlarged and measured 9 x 10 x 7 cm. The surfaces of this large mass were smooth and covered by many dilated veins. The large ovarian mass was quite soft and semifluctuant and contained a large amount of soft, cheesy, yellowish material. The wall of the cyst was quite thin and in most areas no thicker than 1 mm. or 2 mm. In one area there were two large, papillary growths, pearly white and each measuring 2 cm. in diameter.

Microscopical sections of the large ovarian cyst revealed a teratomatous cyst. The inner surface of the cyst is lined in most areas by stratified squamous epithelium which is desquamating off into the lumen of the cyst. Beneath this epithelium there are scattered sweat glands and sebaceous glands, as well as hair shafts. There is also a lining of tall columnar ciliated cells, probably representing respiratory-type epithelium. Beneath these cells there are frequent small areas of cartilage. Within the wall also there are focal areas of nerve cells, fat and dense connective tissue. The interesting part of the cyst is the rather extensive and severe hyperplasia of the Leydig's cells of the ovary. These cells form a broad or a narrow column just beneath the serosal surface, anywhere from four to twenty cells in thickness. These cells are uniform in size and shape for the most part and have round or oval slightly hyperchromatic nuclei. The cytoplasm is abundant and there is considerable vacuolization of this cytoplasm. In many of the cells, crystalloids of Reinke are found with ease. In some areas the cells lose their uniformity and the nuclei become multilobulated, deeply hyperchromatic, and the cells are quite bizarre. However, mitotic figures are not observed and the tumor is considered benign. The papillary growths described grossly within this tumor proved to be areas where there are many closely packed sebaceous glands in the wall of this teratomatous cyst. A section of the opposite ovary revealed considerable atrophy and in the mesovarium there are small groups of ovarian Leydig's cells. This would tend to indicate that this is bilateral hyperplasia of Leydig's cells.

DISCUSSION:

These two cases illustrate examples of hyperplasia of the Leydig cells in the hilus of the ovary. Their presence in the walls of ovarian cysts has not been previously reported. That these cells are not simply residuals of normal hilar cells is clear from the fact that they are found in nearly all sections of both cysts. The aggregate number of cells in each case is considerable. In neither case do the cells produce any tumefaction and the cytological examination suggests hyperplasia rather than neoplasm. The identification of the cells presents no problems since numerous crystalloids are found in both instances.

Although the endocrinologic studies in Case No. 1 are within normal range, the extreme hirsutism disappearing after surgical removal strongly suggests that the cells produce some masculinization. In Case No. 2 there are no clinical findings suggesting masculinization and laboratory study was not carried out. It is doubtful that the presence of the pseudomucinous tumor in the first case and the teratomatous cyst in the second case have any relationship to the presence of hyperplastic Leydig cells.

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COBALT$_{60}$ THERAPY FOR POSTOPERATIVE BREAST IRRADIATION

A Preliminary Report

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March, 1957, G. M. W., age 57, was examined gynecologically including a papanicolasa smear and complained of a walnut size tender moveable lump to the left of her left nipple of two months duration. She was admitted to the Mercy Hospital, Miami, Florida for a biopsy and this was immediately reported as cancer. A radical mastectomy was performed on April 3, 1957.

The histologic diagnosis was an infiltrative ductal cell carcinoma, scirrhous type. None of the lymph nodes were involved. Because of this, she was considered a League of Nation, stage II, carcinoma of the left breast.

A chest survey done on May 31, 1957 at the termination of treatment showed no metastasis to the lungs or visualized bony structures. No radiation effects on the lungs were present.

Her postoperative breast irradiation was carried out with Cobalt$_{60}$ theratron unit at this hospital. This emits three million electron volt equivalent gamma irradiation. The treating distance of source to assumed tumor was always 75 cm. As the radiation is pure gamma, no filtration is required.

The treatment plan consisted of treating the usual lymphatic areas of spread, namely, the left supraclavicular, internal mammary chain of nodes and the left chest wall which included the operative scar region.

The left supraclavicular area was treated by means of two directly opposed and parallel, anterior and posterior 15 x 15 cm. ports. A tumor nodal dose of 3000r was delivered in 17 days. The depth of nodes in this region was estimated to be 5 cm. in depth.

The internal mammary region was treated through a single anterior 6 x 10 cm. port. The internal mammary nodes were estimated to be 3 cm. below the skin surface. The advantage of the Cobalt 60 therapy in this region was to the mediastinal nodes, which certainly received an adequate dose as well. A nodal tumor dose of 3000r was delivered in 17 days. No dysphagia or other untoward symptoms were experienced in this patient.

The chest wall was treated by means of two directly opposed 15 x 15 cm. tangential ports. The tangential chest wall fields are so arranged so as to avoid irradiation of the lungs. A chest wall tumor dose of 3000r was delivered in 17 days.

Cobalt$_{60}$ therapy is at present being utilized in all our breast postoperative cases for the following reasons.

1. Better depth doses are achieved.
2. No significant skin changes.
3. Less radiation sickness has been experienced.
4. Ease of setup of patients.

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A CLINICAL APPRAISAL OF GASTROSCOPY

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THE flexible gastroscope is a closed tube approximately 78 centimeters (31 inches) long and 12 millimeters in its largest diameter. It contains 51 optical elements that can bring a clear image from the stomach to the eye of the examiner. It is a device through which a physician is able to peep into the stomach of a patient.[1] Predicated on this a gastroscopist may be called a "peeping Tom", and like all peeping Toms he sees a lot, learns a lot, often doesn't understand what's going on, and occasionally gets into trouble. Since Schindler and Wolf introduced the flexible gastroscope in 1932, others have modified and attempted to improve the basic instrument. The most fascinating modification is that of Benedict who built into it a device for obtaining tissue for biopsy from the gastric muscosa under direct vision.[2] While Benedict's operating gastroscope is a technically crude instrument, it has brought the element of objectivity to gastroscopy. With it tissue for biopsy can be obtained and the pathologist can confirm or correct the gastroscopist's observations.

Who is properly qualified to perform gastroscopy? First, only those physicians who have a primary interest in gastrointestinal diseases. Second, those gastroenterologists and surgeons who can attend a center where the techniques of gastroscopy can be learned. One can be taught to pass the instrument in a relatively short time. To recognize what one sees in the stomach requires considerable experience and contemplation. In skilled hands gastroscopy is a safe procedure. Perforation of the esophagus is exceedingly uncommon. Gastric perforation occurs occasionally, but is a relatively innocuous complication usually treated conservatively.[3] In skilled hands and with an uncooperative patient the danger is not to the patient, but to the optical system of the expensive instrument. There are distinct contra-indications to gastroscopy which the expert recognizes and respects.

To make the examination easier for the patient and operator it is customary to apply a topical anaesthetic to the pharyngeal mucosa. Cocaine and Pontocain are commonly used. Since they occasionally produce untoward reactions in sensitive persons some use Benadryl or Pyribenzamine topically. Others use intravenous morphine or Demerol to relax their patients. A few use nothing and find that the gastroscope is tolerated with no more difficulty than the ordinary stomach tube.

What does the gastroscope, as a diagnostic instrument, have to offer the practicing physician? Does it tell us anything that can't be told by x-ray? The answers to these questions became obvious after reviewing a nine year experience. From 1947 to 1953, gastroscopy was performed on every patient at the Veterans Administration Hospital, Newing-

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SUMMARY

Though the flexible gastroscope is technically a brilliant invention, diagnostically it is still a crude instrument. Many modifications have appeared, adding to its versatility and usefulness. It is of greatest clinical value: 1) as an adjunct diagnostic tool to confirm or correct the radiologist's diagnosis; 2) to recognize specific diseases of the stomach which may be difficult or impossible to recognize by x-ray; and 3) in the diagnosis of upper intestinal tract hemorrhage of unknown origin in conjunction with esophagoscopy. Its contribution in the diagnosis of the gastritides has thus far been disappointing.

From the Medical Service of the Veterans Administration Hospital, West Haven, Conn., and the Department of Internal Medicine, Yale University School of Medicine, New Haven, Connecticut ton, Connecticut, who had upper abdominal complaints, who was known after x-ray examinations to have a patent esophagus, and from whom permission could be obtained. Since 1953, this work has continued at the Veterans Administration Hospital, West Haven, Connecticut. Those in whom there was an absolute contra-indication were, of course, excluded. Beyond this there was no selection of patients. Our experience with 1300 examinations has been tabulated (Table I). Included are 160 examinations with gastric mucosal biopsy, using the Benedict operating gastroscope. Of the 1300 examinations, 660 were gastroscopically negative; 454 were positive; and 186 were unsatisfactory or incomplete.

What is the significance of a negative examination? There were negative findings in 660 of the 1300 examinations. Does this mean that 50 per cent of the gastroscopies routinely performed were a waste of time and effort? Radiologists are not infrequently puzzled by what appears to be an abnormality in the antrum of the stomach. Is it the result of an ulcer, a carcinoma, or simply a spastic antrum? They often can't tell whether large rugal folds are normal or represent the thickened folds of hypertrophic gastritis or infiltrating malignancy. Possible lesions in the fundus of the stomach are frequently perplexing. It is more than gratifying to our radiologists to know that the gastroscopist can help in many instances to clarify the significance of these puzzling x-ray findings. It seems to us that there is almost as great variation in the rugal pattern of the stomachs of different people as there is in their faces. Some persons have large but normal noses and some have large but normal rugal folds. Some have faces pinched with anxiety and others have an antrum distorted by spasm, possibly for the same reason. When a competent gastroscopist examines the stomach, is certain that he has visualized the area in question and finds nothing abnormal, it is a great relief to the radiologist and to all others concerned. It may mean the difference between surgical exploration with its risks versus conservative medical management. Therefore, this large group of negative examinations does not represent useless gastroscopy. However, a negative examination does not necessarily exclude gastric disease. Indeed, there may be significant disease which is not seen, for certain areas of the stomach are sometimes "blind" to the gastroscopist. The lesser curvature of the antrum is frequently not seen. The pyloric orifice is not visualized in 10 to 15 per cent of examinations. Portions of the posterior wall may not be visualized. The fundus of the stomach is not seen except by employing special techniques. However, the competent gastroscopist knows what he has and what he has not seen; and when he joins forces with a competent radiologist both, together, can arrive at a higher percentage of diagnostic accuracy than either one could achieve by himself.

Neoplasms. Of the 442 positive examinations, the most important relate to patients with tumors, ulcers and gastritis (see Table). When the radiologist makes an unequivocal diagnosis of gastric carcinoma he is usually—but not always—correct. One of the fifteen carcinomas diagnosed with the gastroscope was considered to be a benign ulcer by the radiologist. After gastric resection it proved to be an ulcerating adenocarcinoma. One of the ten gastric polyps was not seen by x-ray until it was localized by the gastroscopist. An ulcerating and bleeding leiomyoma, 3 centimeters in diameter, found on the anterior wall of the stomach by gastroscopy could not be seen by x-ray on repeated (three) examinations. These few instances demonstrate how diagnostic accuracy increases when both techniques, x-ray and gastroscopy, are combined.

Gastric ulcer. It is not always possible to see with the gastroscope the ulcers that the radiologist finds. There are two reasons for this. The most common is that the ulcer lies in a blind area, i.e., the gastroscopist cannot bring it into his field of vision. The second, and far less frequent reason, is that no ulcer exists. When the area in question is well visualized and no ulcer is seen, the x-ray examination should be repeated. In one such instance, an apprehensive physician-patient insisted on operation. After gastric resection no evidence of ulcer, active or healed, could be found by surgeon or pathologist. Conversely, three of the ulcers seen by gastroscopy were missed on x-ray examination. All were on the anterior wall of the stomach proximal to the antrum. These experiences also indicate how diagnostic accuracy increases when both techniques are combined.

We are in an era that is almost hysterical in its attitude towards gastric ulcer. Most surgeons and many physicians have decided to consider all gastric ulcers as possible cancer, advising surgery routinely. It is an easy way out of a difficult diagnostic situation, but a patient can be just as dead from an unfortunate gastrectomy for benign gastric ulcer as from cancer. There are definite gastroscopic criteria for differentiating benign from malignant ulcers. Serial gastroscopic examinations of lesions that can be visualized help determine whether they are behaving like benign or malignant ulcers. The biopsy gastroscope adds a further, though limited, diagnostic possibility to the technique. With the addition of cytologic studies, diagnostic accuracy in ulcerating gastric malignancy can approach 100 per cent.[4]

Nothing in the forseeable future will replace x-ray as the technique without peer in the diagnosis of gastrointestinal disease. We must recognize, however, that even the expert radiologist has diagnostic problems and makes mistakes. There are no instances, therefore, where the radiologist should not welcome whatever the gastroscopist has to offer that will confirm or correct his findings. The gastroscope is an important adjunct tool.

Gastritis. The clinician cannot correctly diagnose chronic gastritis. The disease has no symptoms or signs that may not also be caused at times by peptic ulcer, chronic cholecystitis, chronic pancreatitis, the functional or psychogenic dyspepsias and even the irritable colon syndrome. The radiologist also has difficulty with the diagnosis of gastritis. Certain types of gastritis produce no characteristic x-ray picture; in such cases the radiologist might say that no gastritis was present. Moreover, the topography of some normal stomachs may give the radiologic appearance of swollen or hypertrophied folds; in such cases the radiologist might say that the patient had gastritis. When Schindler invented the flexible gastroscope in 1932, it was felt that at last here was an objective method for examining the gastric mucosa. In time doubt began to creep into the minds of many investigators. Stomachs with severe gastroscopic gastritis were seen in patients who had no gastric symptoms. Conversely, many patients who had clinical gastritis, gastroscopically had none. In 1948, Benedict invented the operating gastroscope with which gastric mucosa could be obtained for biopsy under direct vision. Other methods of obtaining specimens of mucosa were also devised. It was hoped that now the diagnosis of gastritis might be clarified. After almost nine years of experience with these instruments it may be concluded that little extra has been added.[5] When the gastroscopist recognizes gastritis a biopsy will usually confirm his findings. However, when the mucosa appears grossly normal the pathologist frequently finds histologic evidence of gastritis.[6] The greatest value of mucosal biopsy lies in the confirmation of diseases of the stomach such as pernicious anemia, hemochromatosis, lymphoma and carcinoma.

Gastroscopy in acute, upper digestive tract hemorrhage of unknown origin. Recently Palmer has championed an aggressive diagnostic approach in patients with acute upper digestive tract hemorrhage.[7] Esophagoscopy, gastroscopy and x-ray are done at the earliest possible moment, within the first 24 hours, to determine the source of bleeding. There seems to be little to commend simple observation of an acute hemorrhage, hoping that the bleeding will stop. The specter of being compelled to attempt surgery in the absence of a definite diagnosis is an ominous one. The combined endoscopic examinations have thus far helped us to identify bleeding from previously unrecognized gastric ulcer, esophageal varices, hiatus hernia, erosive gastritis, and ulcerating leiomyoma.

A variety of factors, chiefly technical, accounted for the 186 (14.5 per cent) unsatisfactory or incomplete examinations (see Table). The commonest single cause of failure was due to inability to insinuate the instrument through the distal esophagus into the stomach on repeated attempts. This proved to be clinically significant for it was possible to ascertain the reason in over 90 per cent of the cases. In general, failure to pass the cardia is caused by one of two factors: 1) mechanical blockage, as by unrecognized neoplasms of the lower esophagus or stomach, hiatus hernia, enlarged pancreas or liver; and 2) failure of the esophagus to accommodate itself to the relatively rigid gastroscope. Repeated failure to pass the instrument into the stomach should be viewed as strong evidence of an abnormality involving the lower end of the esophagus which should be clarified by other diagnostic methods.[8]

What of the future of gastroscopy? There is no doubt but that ingenious man will continue to tinker with and improve the gastroscope. It seems, however, that the future of endoscopic study of the stomach and possibly other hollow organs may become intimately allied with color television. When a practical camera of small enough calibre can be developed, the clinician may some day sit before a screen discussing the appearance of his patient's viscera with the endoscopic expert.

Table I.

Analysis of 1300 Gastroscopic Examinations

Negative Examinations	660
Positive Examinations	454
Ulcers and Tumors: gastric ulcer 91, jejunal ulcer 3, carcinoma 14, polyps 9, sarcoma 1, leiomyoma 1, extrinsic mass 8.	
Gastritides: acute 3, chronic superficial 85, chronic hypertrophic 50, chronic atrophic 32, mixed 12, post-gastrectomy 17, unclassified 9.	
Miscellaneous: prolapsed antral mucosa 16, giant rugal folds 8, spastic stomach 8, petechial hemorrhages only 12, post-vagotomy stomach 3, diverticulum 1, hiatus hernia 11, normal gastroenterostomy stoma 57, multiple erosions 2, hereditary hemorrhagic telangiectasia 1.	
Unsatisfactory examinations	78
Murky liquid in stomach 9, foaming 16, uncooperative patient 9, technical difficulties with instrument 6, unclassified 38.	
Incomplete examinations	108
Failure to pass neck 5, failure to pass mid-esophagus 5, failure to pass cardia 68, stuck in cascade of stomach 30.	
TOTAL	1300

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MODERN METHODS IN THE EXAMINATION OF MEDICAL STUDENTS

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Medical licensure and medical education share the common responsibility of providing an adequate number of qualified physicians to meet the health needs of the nation. While they represent two somewhat different functions in our society, they do have a basic objective of insuring a sufficient competence on the part of medical practitioners to perform the services that may reasonably be expected of them. Recognition of this joint obligation makes it important that every effort be made to correlate the programs of the licensing boards and those of the medical schools.

It is generally recognized now that the premedical college preparation, the medical course, the internship, the hospital residency and the continuation education of family physicians and specialists are integral parts of a single, long-term educational sequence designed to make men competent to meet the health needs of individuals, families, the community and the country. Portions of the program are primarily under the aegis of universities and medical schools; others are the obligation of licensing bodies; some are under the voluntary control of the numerous professional agencies created to

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help maintain high standards and to measure fitness for special areas of practice. Certain phases of the over-all plan are within the domain of the hospital, which in recent years has assumed increasing responsibilities for professional training. All of these are parts of the complex of modern medical education.

Since the candidates seeking licensure to practice in this country are largely the product of the medical schools, it is obvious that the qualifications and recruitment of the individuals desiring such professional status are largely determined years before they appear for a licensing examination. Therefore, those charged with the duties of licensure have an interest in the recruitment, selection and guidance of prospective physicians. The primary function of medical education, in turn, is to create an environment in which well qualified students may acquire knowledge, habits of study, basic skills, sound attitudes, sense of personal responsibility for patients, acquaintance with the many diverse social and environmental factors in health services and understanding of the ethical principles that motivate the true physician.

Since the functions of medical licensure and education overlap to a high degree, it would be wise to consider in broad terms the suggestion of the Permanent Committee of the Examination Institutes to "separate the concepts of educational fitness testing" as between professional preparation and licensure. The idea also expressed by the Committee that in the medical school "the primary concern is acquiring of knowledge" needs interpretation because that is only one of the objectives of present day professional education. Great emphasis is placed today on the fitness of the student to become a physician as well as on mastery of scientific and clinical facts. It is encouraging that State Board examiners are concerning themselves with the efforts and progress being made to improve methods of instruction. They too are endeavoring to adapt their inquiries to practical rather than largely theoretical questions, to comprehensive examinations instead of tests in single subjects.

Medical education recognizes that there is no short cut to learning because many of the features of practice, science and community service cannot themselves be taught as such, they have to be learned by the student under the guidance of a competent faculty. Hence, the results of medical licensure depend to a very considerable degree upon the effectiveness of those who conduct medical teaching. Those charged with that responsibility are aware that there are many phases in the development of a well qualified physician that do not lend themselves readily to measurements in the ordinary sense of the word. Importance is increasingly being placed upon the evaluation of the individual to think for himself, to demonstrate initiative, imagination, intellectual curiosity, scientific critique and resourcefulness, to face alternatives and make decisions, to develop a desire and to acquire methods and habits that will permit him to continue his own self-education throughout his professional career. He should be self-starting and self-propelling, with a reasonably clear understanding of his own objectives in life.

The selection of students for admission to medical schools is being based upon achievement in and a broad cultural education, a mature sense of values and sound motivation, an evidence of qualities of leadership and willingness to assume responsibility—characteristics in the applicant and later the physician that indicate his capacity to become an ethical, soundly educated doctor, not merely a technician. Since the practice of medicine is both a science and an art, the doctor must have ability to regard the patient as a whole man as well as to treat his disease. This emphasizes some of the difficulties which we meet when we attempt to measure qualifications.

Present day concepts of American medicine in relation to public responsibility and the care of the patient and his family focus on considerations that go far beyond merely measuring knowledge or isolated facts. Psychological testing cannot adequately predict success in vocational life, useful though it may be for measuring general information. The reliance in medical education today is being placed upon performance, which reveals the intangibles and imponderables, rather than upon examinations.

In view of the broadening concepts of proper professional education many new methods have been introduced. Among them may be mentioned teaching in the group clinic; various forms of comprehensive and family medical care plans; integration of instruction on given subjects by several different departments; introduction of clinical problems early in the course; erasure of many of the traditional lines of separation between disciplines; pooling and reduction of lectures; review of basic science knowledge in clinical years; dependence upon individual or tutorial types of supervision; correlation clinics; reliance on learning by the student rather than teaching by the staff; emphasis on the entire four year course as a unit; interpretation of the medical and social aspects of modern medicine; effective supplementary teaching in affiliated and community hospitals; elective periods of research; and scheduling which make possible the effective utilization of time and efforts of students as well as faculty. All of these and other considerations indicate the complexity of present-day instruction and the increasing difficulties of measuring achievement by formal examinations.

Turning to the specific problems implied in the title of this paper, a number of schools have minimized tests as a method of evaluating students. A few rely on comprehensive examinations. Some give tests only at periods, perhaps at the end of the second and fourth years. Others grade students at the end of an academic year and then only as a composite opinion for the entire period, not by subjects. Mastery of material or knowledge alone does not seem to be sufficient to evaluate the fitness of the individual to assume responsibilities that devolve upon the doctor. Hence, the appraisal depends largely upon the manner in which he goes about learning and doing, under supervision, the assignments that are a necessary part of his professional training.

The intent of such procedures is to place the emphasis quite properly upon medical education as a graduate discipline requiring integration of the learning process. This is in recognition of the fact that the entire medical course is a unit, sub-divided for historical and administrative reasons into so-called departments. The lines of artificial demarcation between divisions now have largely disappeared.

There are many forms of examination recommended and in use in secondary schools and colleges, some of which are advocated for medical schools. Objective tests of various types are popular. These tests are favorable to certain kinds of minds but not necessarily to those most needed in the profession. They have certain advantages of uniformity in grading and are timesaving since they can be tabulated mechanically. Yet by their very nature they may not require an understanding of the subject matter or the ability to mobilize and apply the information to complex and diversified medical problems.

Written and oral examinations, while time consuming and difficult to grade, especially in obtaining uniformity, have merit when carefully done because they require the student to assemble, correlate, organize and present his ideas spontaneously. This is particularly true if practicals can be combined with the writtens and orals, although the difficulties of doing this are obvious. Since examinations should be regarded as a tool of education as well as a device for measuring achievement, they permit an individual to evaluate his own work and the instructor to determine to what extent the student is actually benefiting from the instruction.

The widespread adoption of the clerkship plan of teaching in the clinical years well illustrates the effort to place the student in a position not so much to memorize and learn facts but quickly and confidently to mobilize the knowledge which he has accumulated. He is called upon to select, examine and judge pertinent facts of the patient's history, family environment, laboratory findings and other features that contribute to the problem on hand in order that he may formulate a reasonable appraisal of the actual condition that exists. Since no two patients are identical, it seems only reasonable to assume that the manner in which such a student conducts himself, the judgment that he shows, the resourcefulness and ingenuity which he may display in arriving at sound conclusions are procedures which can only be judged over a long period of observation and supervision. The evaluation is a constant process and in the light of present knowledge, does not lend itself to any simple form of testing. There can be no real substitute for the considered opinion and judgment of a competent instructor who has had an opportunity to observe and work with the student over a sufficient period.

For these and other reasons it has always been recognized that the usual type of State Board examination can only be partially successful in screening candidates for licensure; yet it is at the moment apparently the only practical approach to this problem. The screening of graduates by State Boards, functioning in reality as external examiners, have had a salutary influence in elevating and maintaining high standards of medical education. The time may come when graduation from an approved school in this country would be sufficient evidence of ability to practice. For a number of reasons, however, that time has not yet arrived. There are many practical difficulties in this idea, particularly since licensure is the function of the individual states under our American form of government and there are still wide variations in the minimal standards. It is heartening to see the new efforts being made by the Federation, the profession and others interested in these problems in working toward uniform standards, similar type of examinations and ultimately interstate endorsement of credentials.

It might be of interest to recall that these were among the considerations that led to the organization in 1938 of the National Council on Medical Education, Licensure and Hospitals, later abbreviated to the Advisory Council on Medical Education, on which are representatives of twelve of the national organizations interested in medical education, hospitals and licensure. On the question of interstate endorsement, which is closely related to the subject of this discussion, some of you may recall the recommendation of the Advisory Council on Medical Education on this matter in 1940, which was adopted by the Federation at that time. The development of Examination Institutes of this Federation is an important step in the same direction of broadening and deepening the basis of selection and the appraisal of candidates for licensure.

Everyone, including the public, recognizes today the essential features of graduate and postgraduate medical education. The ever expanding knowledge and the many skills required to perform different phases of modern medical care have made it impossible for any single individual to master the entire field on his own to keep abreast of the developments. It is obvious that in the public as well as the professional interest graduate and postgraduate continuation education is as essential a part of the whole spectrum of medical education as the college preparation, undergraduate medical course, the internship, licensure and the residency. This is partially accomplished through the voluntary efforts of individual doctors and the requirements of professional organizations, specialty boards, hospital appointments and other methods of stimulating a desire to maintain professional competence.

The responsibilities of medicine to modern society require that every physician remain a student throughout his entire career and that, in the public interest, his ability be subject to appraisal and evaluation at every stage of his development and activities. The profession, the colleges, the medical schools, the hospitals, the specialty boards and the licensing bodies, each at their respective levels, have definite obligations to determine the fitness, competence, character and reliability of physicians. Examinations, as far as they can determine certain characteristics or can be used as educational devices, are valuable adjuncts in such processes but they cannot substitute for the appraisal of those personal and intellectual qualifications of an individual which cannot be subjected to mathematical measure.

Since it is out of attitudes, sound motivation and value judgments that a physician finally achieves maturity and wisdom, which is the ultimate goal if not the destiny of every man, we must look upon tests per se as only one method by which we appraise men. They are useful but cannot, at this stage of our knowledge regarding them, substitute for the evaluation placed on students and recent graduates by conscientious, dedicated teachers of medicine under whom the candidates have worked under supervision. Most people in medical licensure as well as in medical education will agree that in judging fitness the emphasis must be on the qualifications of the individual himself, in addition to what he knows.

CONNECTICUT STATE MEDICAL JOURNAL

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EDITORIALS

Do You Want Federal Subsidy Of Our Medical Schools?

The recent report of the American Medical Education Foundation covering its sixth year of operation indicates that $1,066,863.29 was received during its 1956 campaign year, an additional $6,040.13 was realized in interest from securities, and that on February 11, 1957 the total of $1,073,340.72 was distributed to 82 medical schools in the United States and to one in Puerto Rico. This was the first year that grants were made directly to the schools. During its first five years the AMEF gave its income for distribution to the National Fund for Medical Education, an organization chartered by the Congress to obtain support for the medical schools from industry. The National Fund was thus able to stimulate large contributions from corporations by pointing to the substantial gifts made by the profession.

During 1956 the Board of Directors of AMEF decided that the National Fund was successfully growing and the leadership of physician giving would be better demonstrated by separate grants from the AMEF to the schools. In addition it was thought wise to encourage self help by the individual schools through their alumni gifts and through designated gifts to AMEF. The loyalty of the physician to his school could not be developed, it was felt, while the emphasis was on unearmarked gifts necessary for the National Fund program.

Direct contributions by physicians to medical schools amounted to $2,247,425.14 in 1956 and were provided by 44,765 contributors. $1,362,540.44 was made up of unrestricted gifts, $565,927.06 was given for building funds, $97,370.13 for scholarships and student aid, $81,537.85 for specific departments, $40,633.59 for endowment, $38,660.00 for teaching budgets, $33,389.77 for research, $11,394.50 for libraries, and $15,971.80 for other restricted purposes. Eleven schools were not able to separate gifts made by their own medical alumni from other gifts to the university. Among the remaining 72, however, there were nine schools which reported gifts from less than 20 alumni, and seven of these received direct gifts from less than ten. These were all four-year schools, most of them established for many years and graduating good sized classes.

Although six state societies asked their membership for a stated contribution paid at the time of their dues (Illinois, Utah, California, Nevada, Idaho and Arizona) and New Jersey gave $25,000.00 financed by dues increases, none of these schools were in these states. Only two of the nine schools received gifts designated through AMEF which were substantial in amount. In five of them, indeed, the total amount of designated and direct gifts was less than the basic amount of $6,850.00 which was given by AMEF to each four-year school. The two-year schools of basic medical sciences received half of this basic grant.

These figures point up the fact that while growth in medical school support by physicians through AMEF has been substantial (39,892 contributors in 1956 against 1,876 in 1951 and 20 per cent more money donated in 1956 than in 1955, exclusive of the A.M.A. contribution), more must be done by some of the medical schools to promote loyalty of support from their graduates. The largest total contribution to a medical school in 1956, exclusive of the AMEF grant, was the $227,903.38 received from 1,185 direct plus designated contributions by California's College of Medical Evangelists. Jefferson Medical College of Philadelphia had the largest number of direct contributions (3,735) but finished third in amount received with $137,791.90 after Harvard which had 3,388 direct contributions and a total received of $138,838.40. Yale stood in the fortieth position on the list with 855 direct contributors and total gifts of $22,169.50.

The A.M.A. which contributed seed gifts of $500,000.00 from 1951 through 1954 cut its contribution to $100,000.00 in 1955 but increased it in 1956 to $225,000.00. A.M.A. has also paid for all the administrative and promotional costs of the Foundation so that every cent raised would go to the medical schools.

Many state and county medical societies, including Connecticut, made generous gifts as did two private foundations, the American College of Radiology and the American Society of Anesthesiologists. The Woman's Auxiliaries to the American Medical Association contributed $113,466.80, an increase of 25 per cent over their gift of the previous year.

Because of the economic factors peculiar to medical education, this support must not only continue but it must increase. In many cases medical schools consume 30 per cent to 40 per cent of the budgets of their parent universities, although they may enroll less than 10 per cent of the students. In spite of the fact that the tuition required of the medical student is normally the highest in the university, it meets only one-fifth of the cost of his education. The need to train more and better physicians has already been demonstrated. Whether it can be done without outright Federal subsidy depends chiefly on the physicians of this country.

The Nurse Midwife

Recently considerable discussion has been stimulated in both lay and professional circles as the result of an address given before the American Public Health Association advocating the increased use of the nurse midwife in American obstetrics. The author of this address, John Whitridge, Jr., is chief of the Bureau of Preventive Medicine of the Maryland State Health Department. In this capacity he has seen the trained nurse midwife in action in some of the rural counties of that state and particularly in those with a high number of domiciliary deliveries among a semi-indigent colored population.

Whitridge urges the use of the nurse midwife to provide the essentials of pre- and postnatal care and to accomplish normal deliveries so that the obstetrician may have more time to give to the refinements of such care as well as to "intensive study of the whole process of human reproduction and human relationship" in order that all may attain "the answer to so many questions that have defied us throughout the centuries." He believes that by delegating routine to the midwife, the physician could give "primary attention to the broader aspects of his specialty, including psychological and sociological as well as physical care."

Up to the present time the use of the nurse midwife in the United States has been limited to rural areas in the Southeast and mainly to the home delivery of the colored patient. Her task has been threefold: to improve the standards of the ignorant local midwife whose training has been negligible and whose methods medieval; to accomplish home deliveries herself; and to assist the local physician in his maternity work. The best publicized of these efforts in this country has been that of the Frontier Nursing Service as promoted by Mrs. Breckinridge in the mountains of Kentucky. Other countries have given the nurse midwife a far more important place in the obstetrical picture and the English system of midwifery together with the Queen Charlotte's group of midwives offer an excellent example.

At the present time the United States compares favorably with the rest of the world as regards maternal, stillborn and perinatal mortality rates. How could the trained nurse midwife fit into a program already giving such excellent results? Although it may be difficult for the resident of Connecticut to realize, there are still regions in this country where many women are of necessity delivered in their homes and where a majority of these deliveries are effected by a midwife with very inadequate training. For example, in Connecticut, Massachusetts and Rhode Island 99.5 per cent or more of all deliveries take place in hospitals. This may be contrasted with South Carolina, Alabama and Mississippi where similarly attained percentages of 72.0, 73.9, and 60.1, respectively, exist. Furthermore, in the above three New England States no deliveries are accomplished by midwives while in the three Southern states the figures for 1954 were 19.5, 18.0 and 29.4 per cent of total births, respectively.

Thus it would appear that for the present time, at least in rural areas, many domiciliary deliveries must occur. Here there would seem to be a definite role for the nurse midwife, either to accomplish delivery herself or to assist the busy practitioner. It must be admitted that she and not he has the time to be in constant attendance of the patient during labor, following which she may effect the delivery or may call in the physician as has been previously agreed upon between them. However, the above should be considered as a temporary expedient, for safety demands that the ideal to be achieved is universal hospital delivery, and especially in rural communities. Obstetrical accidents such as postpartum hemorrhage, prolapsed cord, etc., are bound to occur, with unfortunate results to mother or baby in the home; in urban areas immediate therapy utilizing hospital facilities will usually achieve a more favorable outcome.

We would feel that it is in the field of hospital obstetrics that the nurse midwife might achieve an important permanent position. Certainly, she could accomplish the routine maneuvers of prenatal care leaving the physician leisure to concentrate on the "psychological and sociological" aspects. Certainly she could follow normal patients through labor and perform normal deliveries knowing that hospital equipment and experienced medical aid is immediately available. Instead of interfering with intern training, the midwife could supplement the physician in accomplishing it. And the additional time for investigaton thus provided the obstetrician might result in the solution of major problems still contributing to mortality and morbidity associated with childbirth.

A Look At Blue Shield

Nonprofit prepayment medical insurance plans in the United States had their origin before World War II as the result of concern on the part of the lay public and the medical profession over the increasing total cost of caring for illness. They began as a cooperative venture and grew very slowly as they attempted to find the best level on which to operate. The occurrence of the War and the pressure exerted on behalf of the National Health Insurance legislation caused a much more rapid growth of the plans, which has been further accelerated by the competition offered by commercial insurance companies. Finally, the advent of the issue of so-called "fringe benefits" (including prepayment of hospital and medical services) as an important factor in collective bargaining between industry and the big national unions has given the wheel another dizzy push.

It is to be expected that the average physician who is used to thinking in more or less stable terms with regard to medical fees, which have not kept proportionate pace with the increase in other factors in the cost of living, should be bewildered by the rapid turns of events. Whether he likes it or not, he is committed through his county medical association and his state medical society, and through those whom he has elected to represent him to a large-scale venture in the insurance business. His particular stake in this business must be protected against a rapidly changing set of conditions which are constantly threatening in one way or another to destroy it. The underwriter of health insurance alone does not have the advantage of the reserves which can be accumulated by a commercial company also writing life insurance.

Those who represent the physician in the councils of these "Blue Shield" plans must be free to act quickly within the framework of broadly established policies in order to protect his stake in this increasingly complex business, and also to maintain the initiative which has kept the nonprofit plans in the forefront of this field. To fail in this protection or to lose this initiative even momentarily is perhaps to lose control of this situation entirely and irrevocably. Once this program gets entirely out of the hands of the medical profession, it is hard to see how it could ever be returned to them.

Operating under such pressure and with such great urgency it is almost inevitable that some mistakes have been made and will be made. It is not likely, however, because of the unforeseen and unpredictive nature of some of the problems dealt with, that even a full-scale discussion by all members of the profession acting in concert (assuming that by some miracle that it was possible for them to do so in such a controversial matter) could prevent all of these errors. Patience, understanding and forebearance are the greatest contributions that the physician can make to the development of his local Blue Shield plan.

In order that Connecticut physicians may have better understanding of the events flowing in the stream of prepayment medical insurance today, the *Journal* will attempt to provide each month analytical presentations developed in conjunction with the Medical Director and Professional Policy Committee of Connecticut Medical Service which will help to illuminate the problems they are currently attempting to solve. In this issue, a discussion of developments in the plan of our neighboring State, that of Massachusetts Medical Service, is presented. The material was taken from their Annual Report for 1956.

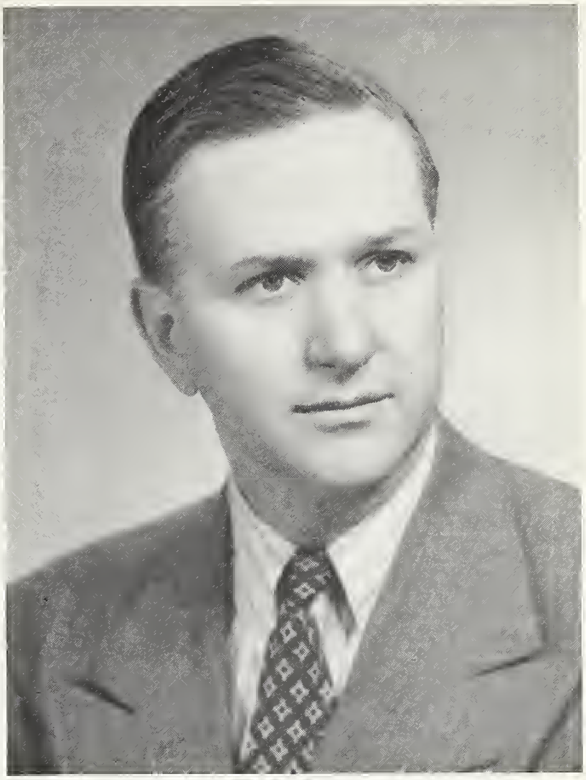
Dr. Allan J. Ryan Appointed Literary Editor of The Journal

Allan J. Ryan of Meriden has been named Literary Editor of the CONNECTICUT STATE MEDICAL JOURNAL, succeeding H. M. Marvin, New Haven, who recently resigned after serving since April, 1956. The appointment was made by the Council of the Society at its January meeting.

Dr. Ryan has been a member of the Editorial Board of the Journal since 1955 and has many years of experience in writing and editing for professional journals. As a member of the Committee on Sports Injuries of the American Medical Association, of which he is now chairman, he edited a special edition of the *Journal of the American Medical Association* on the medical aspects of sports. The edition accented the Olympic games of 1956 and was published on November 17 of that year.

The special edition was widely welcomed by athletic directors as a major contribution of the medical profession to organized sports. The editorial included three special articles and a guest editorial by Dr. Ryan and fourteen articles by physicians actively associated with sports.

Dr. Ryan's interest in medical journalism has extended over many years. He has written clinical articles for leading professional publications and is currently editor of the scientific bulletin of the Meriden Hospital, a position he has held since 1948.



Allan J. Ryan, M.D.

A number of his articles and editorials have been published in the *Journal of the American Medical Association,* which recently accepted for early publication a study by Dr. Ryan of more than 8,000 cases of breast cancer during the period 1935 to 1953.

Other medical journals which have published his articles include the *American Journal of Surgery,* the *American Journal of Proctology,* the *New England Journal of Medicine, Annals of Internal Medicine, Gastroenterology, American Journal of Digestive Diseases,* and the *American Journal of Roentgenology.*

Dr. Ryan also has written for other publications, an article on the effects of smoking having been published in the *American Mercury,* and articles on collecting antiques in *American Heritage* and *Antiques,* the international collector's publication.

Attending surgeon on the medical staff of the Meriden Hospital, Dr. Ryan began the practice of medicine in that city in 1946. He now practices in Meriden, Wallingford, and Cheshire in a surgical partnership with Alfred T. St. James.

Dr. Ryan received his medical degree at Columbia University College of Physicians and Surgeons in 1940 and his residency training at Long Island College Hospital. He is a graduate of Yale University.

PROGRESS IN CLINICAL MEDICINE

UVEITIS: RECENT CONCEPTS

Paul Simel, m.d., and R. M. Fasanella, m.d., *New Haven*

This is the second of a series of papers to acquaint medical colleagues of ophthalmologists with recent advances in the care of the eyes. These discussions should be of interest to the profession as a whole. They are intended to be brief and are written in such a manner as to be understood by the general practitioner, pediatrician, internist, surgeon or psychiatrist. Many of these are problems which the medical doctor must try to consider in formal or informal consultation for patients and often for members of his own family.

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SUMMARY

Uveitis is a manifestation of a systemic disease. This is poorly understood and often neglected. Recent progress is slow but sheds light on the multiple causes which are the internist's job to sort. A short guide to etiology and diagnostic aids most helpful is presented.

In recent years, although the clinical manifestations, complications and problems associated with uveitis and iritis are unchanged, changing concepts of the role of the various etiologic agents implicated in uveitis have forced a reorientation to this problem. Uveitis and iritis still present most serious problems, not only to the patient and his ophthalmologist but also to consultants who are still called in to rule out foci of infection. Thus this serious problem must be shared by the internist and pediatrician, roentgenologist, urologist, gynecologist, dentist and otolaryngologist.

It is well known that endogenous uveitis is often a manifestation of some systemic disease. It results in inflammation of a part or parts of the uveal tract, thus including the iris, ciliary body and choroid. This "tract" is highly vascular, thus falling prey to organisms which may be led there by an errant bloodstream. In addition, allergic manifestations of bacterial and anaphylactic sensitivity may present as inflammatory reactions in the uvea. Excluded from this discussion are all direct metastases to the eye of a purulent character such as are found in septicemia of various causes.

The result of this often recurrent manifestation is damage to the part affected and the adjoining structures. Inflammation and resultant scarring of the iris may lead to membrane formation over the lens, or to secondary glaucoma as the drainage mechanism becomes affected. Exudative reactions in the choroid may affect the retina, and if this is in the macular region useful central vision may be lost.

We are thus dealing with a blinding recurrent disease which often appears in an apparently healthy person. This paradox of a sick eye in a "healthy" person has led to many difficulties in determining an etiology.

In recent years Alan Woods of Wilmer Eye Institute has delineated two broad types of this disease. He has called them granulomatous and non-granulomatous. The course of granulomatous uveitis is protracted. When active it presents a clinical and histologic picture of granulomatous disease as found elsewhere, with large mononuclear cells and nodule formation. It is found more often in the choroid, and is a serious threat to useful vision. Nongranulomatous uveitis describes a sterile uveal reaction, with small cells, thought to be due to allergy and found more often in the iris.

The clinical picture of nongranulomatous uveitis is that of a painful red eye, beginning abruptly, with deep injection of the conjunctiva particularly about the limbus. Resulting from the dilatation of the iris vessels, the pupil is smaller on the affected side and the eye may appear cloudy due to the exudation of inflammatory cells. Nongranulomatous uveitis is usually self limited in its course. Granulomatous uveitis, on the other hand, begins slowly, shows only a moderate perilimbal injection, and only later in its course do symptoms of discomfort appear. Both forms show some loss of visual acuity early.

The granulomatous form may be thought of as having actual organisms caught in the meshwork of the uvea. Thus tuberculosis, syphilis, toxoplasmosis, and brucellosis are major causes. Allergy to the tuberculoprotein as in secondary tuberculosis is important in its pathogenesis. In addition, sarcoid is often associated with a granulomatous uveitis. The aforementioned diseases are of course not the only causes of a granulomatous uveitis but are essential causes, leptospirosis, nematodes, various viruses as herpes zoster and simplex being implicated.

Nongranulomatous forms of uveitis are thought of as being allergic in nature. (Trauma and corneal infection also cause a self-limited iritis but are not endogenous.) This type of reaction may be secondary to a preceding granulomatous form, or, what is more likely, may seemingly arise *de novo*. Rheumatoid arthritis is known to be a precursor of uveitis of the nongranulomatous type, and streptococcal sensitivity has also been implicated to a high degree. Foci of chronic infection such as in the teeth, sinuses and prostate play some ill defined role in non-granulomatous disease of the uveal tract, but are thought of as hypersensitivity reactions and probably bear no relation to the granulomatous forms.

In granulomatous uveitis the indications are clear for a thorough work-up for active or "inactive" tuberculosis, syphilis, brucellosis, toxoplasmosis and sarcoid. These studies should be done at the very minimum. Physical examination and history usually reveal disappointingly little information and the laboratory must be relied upon. Sedimentation rate and white counts are important. Tuberculin testing should at first be done with one to ten thousand dilution of first strength PPD; serology and febrile agglutinins for brucella might also receive close attention. Chest films, hand films for sarcoid, or biopsy of a node may be indicated. The Sabin dye test for toxoplasmosis is not generally available nor is toxoplasmin manufactured except experimentally.

For nongranulomatous forms the problem is more difficult. Teeth sinuses, prostate bear strict examination. By physical examination and lumbosacral films if necessary, rheumatoid arthritis may be ruled out, but the determination of a sensitivity to the many forms of streptococci is an arduous task. For testing and desensitization vaccines of many of the streptococci are prepared at some research centers but are not generally available. An antistreptohyaluronidase or antistreptolysin titer may be performed. Differential white counts and total eosinophil counts may be worthwhile.

The determination of an etiology for the uveitis is more than an academic attempt. The patient and doctor may look forward to recurrences without specific treatment of a chemotherapeutic or desensitizing nature. Often on small evidence but with good results, therapeutic trials have been instituted. There will hardly ever be any startling evidence unearthed in a survey but sometimes enough to proceed with presumptive treatment.

Whereas, previously most ophthalmologists felt that a focus of infection could be found in 30 per cent of cases of uveitis, today many feel that one per cent is a fairer estimate. Dr. Alan Woods, an authority on uveitis feels that causes for this ocular manifestation of disease can be found in 10 to 80 per cent of cases.

All ophthalmologists will agree that if there is the remotest possibility of uncovering an etiology for this blinding disease it must be attempted. A focus of infection in uveitis can be compared to a house with a destructive tenant. Both the house and the owner are better off if empty of such a tenant.

There is a great deal of information which is obscure about uveitis, but clinical and experimental evidence has been found in a sufficient number of cases to make a search for the primary etiology a worthwhile undertaking.

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Council Meeting

The first meeting of the Council for 1958 was held at the offices of the Society on January 8th and was called to order by the Chairman, Dr. Gallivan, at 3:00 in the afternoon. There were many absentees because of hazardous driving due to the recent heavy snowfall. There were present in addition to the Chairman, Drs. Walker, Russell, Barker, Weld, Danaher, Fincke, Otis, Archambault, Gens, Seigle and Gardner. Absent were Drs. Johnson, Gibson, Feeney, Ogden, Clarke, Ursone, Buckley, Schiavetti, Ottenheimer, Meyers, Dwyer, Starr, Thayer and Gilman.

RESIGNATION OF LITERARY EDITOR OF THE JOURNAL AND APPOINTMENT OF A SUCCESSOR

The resignation of H. M. Marvin as Literary Editor of the Journal was accepted with regret and Allan J. Ryan was appointed to be Literary Editor for the remainder of this official year. The resignation of Marshall Pease as a member of the Board having been already accepted by the Board, Dr. Marvin was appointed to the Board in place of Dr. Pease.

RESIGNATION OF THE CHAIRMAN OF THE CANCER COORDINATING COMMITTEE AND APPOINTMENT OF A SUCCESSOR

The resignation of Allan J. Ryan, as Chairman of the Cancer Coordinating Committee was accepted with regret and on Dr. Ryan's suggestion William Mendelsohn who has served as Secretary of the Committee for many years was named to succeed Dr. Ryan as Chairman for the remainder of this year and until new elections to the Committee are made at the Annual Meeting of the House of Delegates on April 29th.

CONFERENCE OF PRESIDENTS AND OTHER OFFICERS OF STATE MEDICAL ASSOCIATIONS

The Secretary was authorized to pay the annual assessment of $50 for the Society's membership in the Conference of Presidents and other Officers of State Medical Associations.

ADDITIONAL BUDGET ALLOWANCES FOR 1957

(a) 1957 budget allotment for Blue Cross-Connecticut Medical Service premium was increased from $375 to $405, actual expenditure.

(b) The budget allotment for the Journal was increased from $53,090 which included the $9,000 increase approved by the Council on October 31, 1957, to $54,533.74, increase of $1,463.74 actually expended.

(c) Budget allotment to Committee on Medical Care of Veterans increased from $150 to $211.75.

(d) Budget allotment for Council of New England State Medical Societies increased from $200 to $279.90.

(e) Budget allotment to Committee on Rural Health increased from $150 to $182.55.

(f) Budget allotment to Committee on Eye Care increased from $100 to $194.14.

The latter figures being the amounts actually expended.

PRELIMINARY REPORT OF 1957 CLINICAL CONGRESS

The Secretary presented a preliminary report of attendance and financing for the 1957 Clinical Congress. He stated that the Committee on Postgraduate Education which arranges and operates the Clinical Congress each year had not had a meeting since the December Congress but the Committee would meet in the near future and present recommendations to the Council concerning the 1958 Congress.

EXHIBIT OF PODIATRY ASSOCIATION

The Secretary presented a request from the American Podiatry Association asking permission to have an educational exhibit during the 1958 Annual Meeting of the Society and a photograph of the exhibit was displayed. After discussion it was finally voted that this request be denied at this time with a statement that it might be considered again for some future meeting.

RESOLUTION FROM THE SECTION ON DERMATOLOGY FROM CONNECTICUT MEDICAL SERVICE

A resolution passed by the Council of the Section on Dermatology on August 22, 1957; a letter from the Chairman of the Section on Dermatology addressed to William H. Horton, M.D., Executive Director of Connecticut Medical Service dated November 5, 1957; and a letter from the Chairman of the Section on Dermatology addressed to the Executive Secretary of the Society dated November 27, 1957 were presented for discussion. William H. Curley, Jr., Bridgeport, Chairman of the Society's Committee on Third Party Payments had been invited to meet with the Council at this time and was present for that purpose. Dr. Curley recounted contacts and a meeting that the Committee on Third Party Payments had had with the Council of the Section on Dermatology during recent months and emphasized a recommendation that had been made that a dermatologist be placed upon the Professional Policy Committee of Connecticut Medical Service so that the particular problems of the dermatologists in the State could have ready discussion by Connecticut Medical Service. This recommendation has been adopted by Connecticut Medical Service and in the elections for members of the Professional Policy Committee, after nomination by the County Medical Associations, in October of 1957 a dermatologist was elected to the Professional Policy Committee following established procedure. It now appears that the dermatologist so elected has resigned as a Participating Physician in C.M.S. and therefore not eligible to serve as a member of the Professional Policy Committee.

The specific request in the correspondence from Dr. Elwood Weise, Jr. was that the resolutions adopted by the Council of the Section on Dermatology in August 22, 1957 and the letter to Dr. William H. Horton dated November 5, 1957 "be read into the minutes of the Council and the House of Delegates". It was moved and voted that action upon this request be postponed for at least one more meeting of the Council because of the uncertainty surrounding the election of a dermatologist to the Professional Policy Committee and that the Secretary be instructed to communicate this action to Dr. Weise.

RECOMMENDATION FROM THE COMMITTEE ON INDUSTRIAL HEALTH CONCERNING FREE CHOICE OF PHYSICIANS IN WORKMEN'S COMPENSATION

John F. Kilgus, Chairman of the Society's Committee on Industrial Health, was present and explained why the Committee had taken exception to Article 4 on page 7 of the "Scope, Objectives and Functions of Occupational Health Programs", which contains a sentence, "The right of the employee to select his attending physician should be maintained". It was this reference to "free choice" to which the Committee on Industrial Health took exception. Upon the completion of Dr. Kilgus' remarks the Chairman, Dr. Gallivan, entered the discussion. Dr. Gallivan is a member of the Committee on Industrial Health and was a member of the Council on Industrial Health of the American Medical Association, which agency promulgated the "Scope and Objectives" referred to. Dr. Gallivan spoke in favor of the principle of free choice as expressed in the A.M.A. publication and expressed his opinion that although the Society had been traditionally opposed to complete free choice that he felt that a change in thinking was indicated. Others entered the discussion briefly and it was finally voted that the resolution received from the Committee on Industrial Health be returned to it for reconsideration and review and that the Committee be given permission to invite any and all persons it may wish to hear on the subject.

MEMORANDUM FROM THE COMMITTEE ON EYE CARE CONCERNING THE FITTING OF GLASSES BY OPHTHALMOLOGISTS

Clement C. Clarke, Chairman of the Society's Committee on Eye Care, was present by invitation to explain an incongruous situation relating to ophthalmologists dispensing and adjusting eye glasses, due to a conflict of such practice with regulations made and administered by the Connecticut Commission of Opticians. Various methods to correct the existing circumstances were presented by Dr. Clarke and discussed. These included (a) an effort to have the administration regulations of the Commission of Opticians changed, (b) revision of the Medical Practice Act to set forth in detail the privileges of doctors of medicine, and (c) amendment of Sec. 4524 of the General Statues to make Chapter 207 of the General Statutes regulating the practice of opticians inapplicable to doctors of medicine.

The Secretary presented a letter from John D. Booth, President of the Connecticut Medical Examining Board to the effect that he felt that it would be dangerous to attempt to make broad revision in the Medical Practice Act to define the practice privileges of doctors of medicine. It was voted that the entire subject be referred to conference between the Committee on Eye Care, the Committee on State Legislation and the Connecticut Medical Examining Board with a view of proposing remedial legislation to be introduced in the General Assembly of 1959.

A DIRECTIVE FROM THE HOUSE OF DELEGATES CONCERNING INFORMATION RELATING TO THE FORAND BILL, HR 9467

The House of Delegates of the Society at its semiannual meeting on December 11th after remarks by D. Olan Meeker concerning the Forand Bill voted "that this matter be referred to the Council, with the power to circularize the members of the Connecticut State Medical Society to inform them of the urgency of the bill". This vote was discussed and particular reference was made to occasional hasty action causing the distribution of information or promotional material by direct mail to members of the Society instead of relying on the State Medical Journal as a means to distribute such information. It was agreed that direct mail of information concerning the Forand Bill not be undertaken but that a President's letter, editorial comment and analytical discussion of the bill be included in an early issue of the State Medical Journal.

RECOMMENDATION FROM MEDICAL ADVISORY COMMITTEE TO THE CONNECTICUT REGIONAL BLOOD BANK REGARDING A CONSULTANT

The Medical Advisory Committee of the Connecticut Regional Blood Bank has recommended to the Council that Fred H. Allen, M.D. of the Blood Grouping Laboratory, Boston, be named a consultant to the committee and that the sum of $250 be appropriated to pay Dr. Allen's expenses during attendance at committee meetings. It was voted to approve the recommendation and that Dr. Allen be invited to serve as a consultant and that the Society pay his reasonable expenses for coming here for occasional meetings of the Medical Advisory Committee to the Connecticut Regional Blood Bank.

ELECTION OF STUDENT MEMBERS

Seven student members were elected to the Society.

MEMBER OF PROGRAM COMMITTEE OF NEW ENGLAND HEALTH INSTITUTE

It was voted that W. Bradford Walker, President of the Society and member of the Public Health Council of the State of Connecticut, be the Society's representative on the Program Committee of the New England Health Institute that is to be held at the University of Connecticut, June 18-20, 1958.

REPORT OF COMMITTEE ON CASUALTY PLANNING

A report presented by the Chairman of the Committee on Casualty Planning had been distributed just before this meeting and because no opportunity had been given to read the report and preparation for its discussion, it was voted that action upon it be postponed until the next meeting of the Council.

It was voted that the next meeting of the Council be held on Thursday, February 20, 1958.

The meeting adjourned at 6:30 P.M.

The Connecticut State Medical Society Student Members — January 8, 1958

Armand J. Auger, Putnam (37 Battey Street)
Laval University Medical School—Class of 1962
Pre-Med: Assumption College
Parent: Emile G. Auger

Elihu A. Channin, Hartford (10 Mayfair Road)
Tufts University—Class of 1961
Pre-Med: University of Conn., Columbia University
Parent: Myron A. Channin

Richard H. Goldman, West Hartford (347 North Quaker Lane)
Tufts University—Class of 1961
Pre-Med: Harvard University
Parent: Edward Goldman

Paul L. Juan, Greenwich (396 Greenwich Avenue)
University of Ottawa—Class of 1961
Pre-Med: Fordham College
Parent: Paul L. Juan

Manny Myerson, West Hartford (215 Auburn Road)
Tufts University—Class of 1961
Pre-Med: Trinity College
Parent: Nathan M. Myerson

Ann Z. Reath, Fairfield (1484 Brookside Drive)
Johns Hopkins—Class of 1961
Pre-Med: Wellesley College
Parent: Roger E. Reath

Barrett Scoville, West Hartford (334 North Steele Road)
Johns Hopkins—Class of 1961
Pre-Med: Yale University
Parent: William B. Scoville

Meetings Held In January

8	Council
15	Committee on Perinatal Mortality & Morbidity
	Connecticut Health League
	Committee on Accident Prevention
	Committee on Hospitals
	Advisory Committee to the Commission on Tuberculosis and other Chronic Illnesses
16	Nominating Committee
22	Advisory Committee to the Blood Bank
	Joint Committee of the Connecticut State Medical Society, Conn. Pharmaceutical Association and Conn. State Dental Association
23	Committee on Insurance
29	Sub-committee on Toxemia
	Sub-committee on School Health
	MEDICARE Committee

California Medical Association Purchases Building

Reflecting CMA's continuing growth, the CMA Council at its Nov. 10 meeting voted unanimously to purchase 693 Sutter Street, S. F. Occupancy of the six-story building, formerly owned by the California Teachers Association, is slated for sometime after July 1, 1959.

DOCTOR'S OFFICE

Ambrose Alfonsi, M.D. announces the opening of an office for the practice of general surgery at 236 W. Main Street, Meriden.

Ronald J. Czaja, M.D. announces the opening of his offices for the practice of obstetrics and gynecology at 525 Main Street, Hartford and 2 Spring Street, Windsor Locks.

Robert I. Lowenberg, M.D. of 245 Edwards St., New Haven announces that after February 1, 1958, his practice will be limited to vascular surgery, including arteriography and aortography.

Robert A. Nevins, M.D. and Robert E. Gaffney, M.D. announced the removal of their offices from 1506 Post Road to 1280 Post Road, Fairfield.

Leo M. Smith, M.D. announces the removal of his office to 43 Hoyt Street, Stamford.

Harold C. Walker, M.D. announces the opening of an office for the general practice of medicine at 276 West Avenue, Norwalk.

Arizona Goes Spanish

Your editor is accustomed to receive copies of foreign medical journals in Polish, Ukranian, Italian, Spanish, French and German but never before has one of our own state medical journals presented itself with an article in a foreign language. True, the *World Medical Association Journal* is published in French and Spanish as well as English, and the *Journal of the International College of Surgeons* publishes articles in several foreign languages.

Much to our surprise, Arizona Medicine carries its leading article in Spanish dealing with the treatment of craneocerebral trauma. Many physicians in the Border States are as conversant in Spanish as in English but for us in New England the number is small. Traveling in foreign countries where frequently the man on the street can converse in three or four languages impresses one with the fact that we Americans are really not well educated. The study of Spanish has largely replaced that of German in our schools and colleges but how many college graduates can converse in French, Russian, Italian and Spanish, not to mention Dutch and German?

THE HISTORIAN'S NOTE BOOK

MEDICAL JURISPRUDENCE

Johnson C. Hatch, M.D.

The Author. *Fellow of Connecticut Medical Society from Litchfield County, 1848; Member of Standing Committee to nominate Professors in the Medical Institution of Yale College, 1850*

The medical profession of our country, with very general consent, has lately evinced unwonted interest on the subject of endeavoring to advance the standard of education both for those preparing to enter upon the study, and for such also as offer themselves to the ranks of the profession.

The American Medical Association has made it a prominent feature in its scheme of improvement, by earnestly recommending all teachers to insist that those who present themselves for the study of medicine and surgery, higher qualifications than have hitherto been deemed indispensable by those who take upon themselves the office of instructors. This body has attempted further to benefit the world, and to elevate the character of the profession by its recommendation of *uniformity* in the system of medical and surgical instruction in the various public schools of our country.

The outlines drawn by the wisdom of the Association, and communicated to the professional public, have been, I believe, very generally considered as eminently entitled to regard by all who entertain a desire for the public good, or have in view the honor of the profession. It is indeed a grateful duty to admit that, though defects and shortcomings yet exist in our system of instruction, the last half century has witnessed very many splendid achievements on the field of medical science, beyond the boundaries defined by previous research.

It is with pleasure too, and pride, that we may dwell upon the comparative merits of our *own cherished institution,* whither those who are to succeed *us* in the responsible duties, now incumbent on ourselves, can repair to complete their qualifications for the task they are to assume.

But, Mr. President and gentlemen, I come in fulfilment of the task assigned me, to speak of a defect that obtains to some extent, as I conceive, in our own as well as in most other schools where medical science is pursued.

I allude to that important branch, denominated *Medical Jurisprudence.*

Perhaps there is no better criterion with the *public,* to judge of the attainments of a physician, than by his knowledge of this branch of our profession.

Is he ignorant of its principles, or unable to convey in a clear and intelligible manner, his knowledge of the various questions which may be propounded to him, to establish an uninstructed jury in an opinion that may involve interests of immeasurable magnitude, he is sure to suffer from the galling batteries which some, in the legal profession, at every bar in the state, are qualified to bring to bear upon him. His own, and to some extent the disgrace of the profession to which he belongs, must follow; and how unenviable must be *his* position as a witness, who has no other shield for his protection, than that simply which a diploma can confer.

It seems incumbent then upon the profession, to exert a controlling interest over the education of such as seek its membership.

This most clearly was the view taken by the able and learned committee constituted at the United States Medical Convention in 1846, who had in charge the whole subject of medical education, and whose report, defining what it ought to be, met with universal approbation at the convention of the American Medical Association in 1847.

The subject of which I speak was then and there emphatically urged, and distinctly embraced in the enumerated catalogue of the studies appropriate for the adoption of the public schools.

The liability to which every young member of the profession is exposed to become involved, and

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under circumstances so fraught with danger to his own reputation, the reputation of the profession, as also to the rights of others if unprepared to wield the potent powers with which by custom he is supposed to be invested, seems to call for adequate appropriations for his outfit in the start of his untried course; for slow indeed to the majority of minds comes the necessary discipline when left to glean alone the field of science.

Civilians have well discerned their duty and performed it. It is *ours* to apply such regimen as the constituted body politic requires, as well as to put forth our powers to restore to health the subjects of disease.

In the early days of our medical history, many instances are upon record of the infliction of capital punishment upon subjects whose condition of mind ought to have forbidden the application of the penalty of law.

An execution took place many years ago in Litchfield county, of a maniac, who fancied himself the Supreme Being. His whole demeanor, it is understood, was consistent with this one insane idea; yet the hallucination was construed to entitle him the more richly for his irreverance, to an ignominious death; and years rolled away before a suspicion was raised as to the healthy state of mind of the sufferer, and the consequent justice of the act.

Later, only a few years since, a trial was held in the same county, upon a foreigner, for the crime of murder, in which there was a clear triumph of medical science over the strongest demonstrations of popular feeling in favor of the most rigorous and summary application of punishment due to such a crime, and against the testimony borne by physicians to the unsound condition of the prisoner's mind. An enlightened court, and a jury who had the good sense to lay their minds open to receive instruction on the subject from men who had made themselves more acquainted with the mind diseased. Even in this case a titled authority was placed upon the stand to witness before the court that there was no defect in the poor prisoner's mind; and no such form of insanity as monomania. When retiring from the stand he was addressed by one who had listened to the whole proceedings, in substance as follows. "Sir, when I came here I entertained very much the same opinions you have expressed, and I believe I did so in common with a large majority of our neighborhood; but by the light shed around us on this trial, I must be allowed to pronounce you out of place while you occupy a standing among doctors." He was granted *nothing* in consideration of his youth. I would yield him *that* apology. The subsequent history of this case has abundantly justified the righteousness of the conclusion to which the jury came in their verdict of acquittal.

There have been numerous instances in which insanity has been set up as a defence of the violations of the law, where the accused was laboring under no other than a moral infirmity of mind, temporarily obscured by means through which his obliquity could find no justification: but where a nice discrimination is demanded lest a medical witness shall be found to lend his voice and influence in violation of his high and solemn obligations to sustain the majesty of wholesome law, and not to screen the guilty or to varnish crime.

We might speak of the numerous items to be taken into account by the mind employed in prosecuting its enquiries into subjects pertaining to the department of medicine we are considering. I might speak more particularly of the necessity of a thorough understanding of the effects of those agents sometimes employed to accomplish the destruction of human life—of the tests whereby to detect their existence, in order that a just distinction may be made between the operations of *these,* and the ravages of ordinary disease—of the results from violence inflicted upon parts essential to life. Of all these and their kindred topics, you are fully aware.

Nor is it necessary to advocate here what all will acknowledge, the usefulness and dignity of this branch of a medical education. And I forbear the detail which these thoughts suggest.

I am admonished by the character of the audience I address, that I can inculcate no new truth, nor indicate a path of duty to fields not already explored by all who hear me. I submit however, that if a defect exists of the kind to which I have alluded, does it not devolve on one and all, to aid in providing that the student of this school, as he goes forth under the authority of Connecticut, to take upon him the high duties he is to meet, may enjoy the advantage of direct instruction in this interesting department of our profession.

INSURANCE AND THE PHYSICIAN

THE PHYSICIAN AND BLUE SHIELD

Norman A. Welch, m.d., *Boston, Mass.*

The Author. *Physician-in-Chief, Carney Hospital, Boston; Clinical Professor of Medicine, Tufts College Medical School*

SUMMARY

Explanation is offered for the establishment of prepayment medical care plans. The success of these plans has been phenomenal. In 1956 alone over $400 million was paid to physicians by Blue Shield plans. Physicians have received fees for service formerly uncollectible. The question of the proper fees for services rendered is discussed in quotations from the 1954 Report to the Board of Trustees of the American Medical Association by the Committee on Medical Practices. This has proven to be a difficult problem, particularly as applied to medical fees compared to surgical fees. An appeal is made to the young physician, particularly the internist, starting in practice to assist in solving the problem of relative fees.

ORIGIN OF PREPAYMENT PLANS

Almost 20 years ago, simultaneously in various sections of the country, there arose a feeling that some type of prepayment plan for the provision of medical care should be developed. In general it was felt that certain basic principles should maintain in the formation of any such program:

(1) Preservation of the traditional patient-physician relationship which guarantees free choice of physician to the patient.

(2) There should be freedom of action with the proper restrictions of licensure, law and ethics.

(3) There should be freedom of participation by all duly licensed physicians in the area.

(4) There should be subscriber representation in the corporation because of its quasi public character and in recognition of a legitimate subscriber interest in such a program.

(5) There should be supervision of the corporation by proper governmental agency such as the Commissioner of Insurance so that the profession might properly discharge its serious moral obligation to conserve and protect the potentially large accumulations of prepaid funds collected from the public.

It was important in establishing any such program to ensure that authorizing legislation would provide fair and reasonable controls in actions of the corporation by the medical society as far as matters intimately affecting the practice of medicine were concerned because the medical society was creating and financing the corporation and was contributing the support of its membership to achieve its ends. The ends which it sought to achieve were (1) to alleviate the burdensome costs of medical care for the low income group and (2) to avert the threat of compulsory health insurance or of compulsory reorganization of the medical profession into groups under lay or political domination.

At that time we had been through a rather long period of business depression and it was commonly stated that medical costs often attained proportions which were difficult for the low income group to meet. It was felt that it might be possible to meet this problem with widely accepted principles of insurance which would dilute the cost by distributing the risk over a large group, and by budgeting and prepayment to take care of unforeseen medical costs in advance of their occurrence.

It was further felt by many that in return for the hoped-for cooperation of the public the medical profession would guarantee certain medical benefits for the premium paid without additional charge

Presented on a Panel on Medical Care Insurance at the 165th Annual Meeting of the Connecticut State Medical Society, East Hartford, May 1, 1957.

by the physician and that such agreement would be limited to those within prescribed income limits. It seemed that little credit would accrue to the profession if only a small part of an individual's medical expense was provided and he was left with an additional and possibly burdensome bill from his physician. Indeed, such a program could conceivably increase the cost of medical care by the physician adding his regular charge to that fee allowed by the plan. There have been charges that this actually has happened in some instances.

SUCCESS OF PLANS

The success of these plans in less than two decades has been phenomenal. From a beginning fraught with misgivings and with little or no actuarial basis for computation of premiums there has emerged a tremendous business enterprise backed by the belief of the American public in the principle of free enterprise and its willingness to pay its own way and choose its own medical care. The profession should be eternally grateful for this public cooperation because I am sure that without it we would not be a free medical profession today.

Blue Shield alone today provides protection for over 39,000,000 people and it is expected that by July first this number will exceed 40,000,000.

In 1956 the total amount of money paid to physicians by Blue Shield plans was $438,587,787. In Massachusetts alone we expect to pay to doctors in 1957 over $30,000,000 compared with $7,000,000 in 1950. In the short space of 10 years enrollment in Blue Shield plans has grown from 1,826,719 to the staggering figure of 39,000,000 people. Your own State of Connecticut reached an enrollment of over 1,000,000 before the end of 1956, representing over 46 per cent of your population. Delaware has over 61 per cent of its population enrolled and the District of Columbia, over 53 per cent and Michigan, just under 50 per cent.

Such tremendous growth and success carries with it the inherent dangers of complacence and self satisfaction. There are too many examples of large business enterprises suffering the necessity for retrenchment and even undergoing failure because of over-confidence and lack of progress for us to fail to profit by past example. The competition today from those who had no interest in this problem until it was proven it could be effectively done is in itself sufficient for us to beware of over-confidence in our success of the past decade. Much of this work has been done by those who had little or no experience in the field of insurance and out of it has come many who are today leaders in this type of endeavor. Some of these men tower above the others in their aptitude for the job and their vision for the future. In Massachusetts and in Connecticut we are especially fortunate to have Dr. Hayden and Dr. Horton, two men for whom I cannot help but have the greatest respect and admiration. Their individual and collective contributions cannot be duplicated anywhere in the world and I say this without fear of contradiction by anyone anywhere.

We need the cooperation and help of every physician in the United States. It is important that we enroll as many people as possible as subscribers because with greater enrollment we can spread the risk on an even wider plane and thereby maintain a reasonable premium structure for the public and improve provided benefits. Should competition deprive us of the good groups and leave us with the small groups and the aged and retired it is questionable whether we can survive because of the increased risk and the increased premium necessary. If this day should come I am confident that the medical profession will then be closer to government control than it has been in the past. I need only to remind you that there are over 14,000,000 people in this country over 65 years of age who could swing the balance in an election if medical care was not available to them at a reasonable cost.

BENEFITS TO PHYSICIANS

What has this program done for the profession? I have already mentioned the many millions of dollars paid in physicians' fees. You are all familiar with the concern over the disappearance of ward material for medical student and intern and resident training. This is attributed to the fact that many of these people now have some form of insurance coverage and I am sure that is true. If this is a fact then the physician is being paid for work previously done for no compensation. In addition, payment for the physician's services by Blue Shield represents a collection of his fees substantially beyond the amount he would ordinarily expect from direct billing to the patient. As someone recently said, this is all done for him at the small cost of a three cent stamp.

Are we content with the lot of the physician in this program? As one who has had a substantial responsibility in one plan and also responsibility in the overall program of coordination of the 72 member plans in the national picture I can say without hesitation that we are not satisfied. I might add further that I am an internist and perhaps I need say no more. We are concerned with the relationship of various specialties to each other in the overall picture and I have literally spent hours in an attempt to find the answer to the problem of adequate payment for the internist's services.

PROBLEM OF RELATIVE FEES

In its 1954 Report to the Board of Trustees of the American Medical Association the Committee on Medical Practices stated that interviews with physicians showed clearly that all fees are a matter of tradition and public acceptability. When asked how he set his fees, every physician, no matter what his field of practice said, "I asked around the community and found out what other physicians were charging." The report then went on to say that the interviewers concluded that physicians display little scientific curiosity about the origin and basis of their fee structures although internists have given considerable thought to why surgeons are better paid.

"Theoretically, it is impossible to place a value on the services of a capable and conscientious physician. As a practical matter, however, the rapid expansion of Blue Shield coupled with the fact that it provides service benefits for a large segment of the population has made it necessary to do so. Obviously, then, Blue Shield fees must be capable of providing adequate and equitable remuneration for all physicians regardless of their particular field of interest.

"Examination of the concept of 'ability to pay,' which is said to be the traditional standard according to which physicians establish charges for their services, reveals that it has a dual personality. In one sense it means that for the same or similar services, the physician varies his charges in accordance with the respective economic circumstances of his patients. In another sense it means that charges for less difficult services are inflated in order to compensate for the inability to collect for the full worth of more difficult services. As far as most patients are concerned any major operation is a significant event and because patients are in no position to evaluate the relative difficulty of major operations they are willing to pay $150 for an appendectomy although their incomes preclude their paying more than $300 for a gastrectomy. While less marked, the same situation applies also to medical (nonsurgical) services.

"The insurance mechanism makes it possible for individuals to do things collectively that they might find it difficult or impossible to do as individuals. For this reason it is possible for an intermediary such as Blue Shield to deal more adequately and equitably with physicians in respect to finances than it is for individual patients to deal with physicians. Actually, as far as Blue Shield is concerned, the concept of ability to pay relates only to the ability of subscribers to pay reasonable subscription charges. This being so it is possible for authorized representatives of the medical profession to see that each segment of the profession is dealt with fairly in respect to the distribution of Blue Shield funds as among the various segments of the profession.

"The main problems involved in the development of a satisfactory Blue Shield schedule of fees arise out of the economic relationships between general practitioners and specialists, the cost to the Plan of frequently performed procedures, and the seeming disparity between fees paid to medical specialists on the one hand and to surgical specialists on the other.

"Much of medical care is overlapping in the sense that it can be carried out well by either a general practitioner or a specialist. It would be difficult to argue, for instance that a general practitioner could not become proficient in the treatment of pneumonia, the removal of tonsils, the reduction of fractures, or the excision of hemorrhoids. It would also be difficult to argue that he should not be paid a fee comparable to that paid a specialist for his proficiencies. On the other hand, it is unlikely that many general practitioners would undertake to treat an obscure blood dyscrasia or perform a mastoidectomy or colectomy. If, then, it is true that much of medical care is overlapping, it should be possible to extract the common items and establish relative values for them which would be satisfactory to both general practitioners and specialists. However, when it comes to establishing absolute values (actual fees) it must be kept in mind that those services rendered by both general practitioners and specialists have a relatively high incidence of occurrence. This is of great importance to a Blue Shield Plan because these items account for the bulk of its payments. In Massachusetts obstetrical services — mostly pelvic deliveries — account for about 20 per cent of all payments while appendectomy and tonsillectomy each command more than 7 per cent of the total annual payment for surgical services. Obviously the establishment of absolute values for high-incidence procedures cannot be taken lightly if subscription charges are to be kept within reasonable bounds.

FORMULAE FOR FEES, PARTICULARLY FOR SPECIALISTS

"The main problem in establishing relative values for services rendered only by specialists is the equalization of values as among the specialties. As far as the surgical specialties are concerned, this is not too difficult a job. However, when the attempt is made to equate values as between the medical and surgical specialties, obstacles arise because, unlike surgical services, medical services do not possess an outstanding definitive characteristic that lends itself to objective evaluation. About the only measurable characteristic that medical and surgical services have in common is the amount of time spent with and for the patient. Using this as a basis and assuming all other factors to be constant, it is at least theoretically possible to work out the respective relative values for diagnosis and treating pneumonia and appendicitis. However, the quantity and complexity of the determinations that would have to be made if such a basis were employed for all medical and surgical services would seem to mitigate against any substantial progress in this direction.

"As stated above, it is not difficult to establish a scale of relative values for surgical services. The American Association for Thoracic Surgery has done it for thoracic surgery and all Blue Shield plans have done it not only for thoracic surgery but for the other surgical specialties as well. In fact, Dr. William Horton, the Executive Director of Connecticut Medical Service, has published an elaborate formula for establishing relative values for all surgical services which is based on ratings that take into consideration the location of the surgical field, the nature of the surgical problem, the technical skill required, the duration of aftercare, and the time spent operating. Similarly the California Medical Association recently made available a formula by which relative values for all surgical procedures can be established once the absolute value for any given procedure has been agreed upon. Although both Dr. Horton's formula and the California Medical Association's formula do reduce the establishment of relative values for surgical services to a quasi-scientific basis, they are essentially based upon the combined subjective responses of large numbers of physicians which do not take into account the fundamental economic disparities that are the major source of discontentment in the surgical field."

THE PHYSICIAN STARTING PRACTICE

Finally I would like to say a word for and to the young physician who has recently started in practice. As physician-in-chief of a 300 bed hospital and having been clinical professor of medicine at one of the medical schools I think I am familiar with many of your problems. I am well aware of the differences in your economic situations compared with that of 25 or 30 years ago. In my day one did not get married until he was actually in practice and had the personal means for support of a wife, a family and a home. But in my day there were no boards requiring long periods of training and there was no requirement of three years of military service. I have always maintained that a physician has the moral right to a wife and home before he is 35 years of age. The profession of medicine, by its long training requirements, is partly responsible for this dilemma and I am sure some of these requirements are too rigid. The rapid progress of medicine with its more intricate problems of diagnosis and treatment is also partly responsible. I realize full well that your economic responsibilities are tremendous. The provision of a home for your family, the purchase of adequate transportation, the protection of your family with some amount of life insurance and with health and accident insurance against the hazards of loss of income, the cost of maintenance of an office are all frightening financial burdens, especially considering the increased cost of living and the increased cost of providing the bare essentials for conducting a practice.

The necessity for you to earn an income almost as soon as you start in practice which will assure you and your family of at least the bare necessities of life is well recognized by the older practitioners. The difficulties of the young internist are greater than those of the young surgeon because he is not afforded the income from operative assistant's fees. We recognize this problem and need your help toward its solution. I sincerely ask you to co-operate with us because you are the people who have the greatest stake in the future of prepayment plans.

Special Article

THE NEW ADOPTION LAWS

John P. Bachman, m.d., *Hartford*

The Author. *Medical Director, Connecticut State Welfare Department*

Two recent committee meetings have dealt with the implications of Public Act No. 203 of the 1957 General Assembly, "An Act Concerning Adoption of Children."

On September 19 a joint meeting of the Committee on Maternal Mortality and Morbidity and the Committee to advise the State Departments of Welfare and Finance and Control was attended by Dr. T. Stewart Hamilton, the Society's representative to the Special Group on Implementation of the New Adoption Laws, Dr. Martha Clifford, chief, Maternal and Child Health Division, State Health Department, and Dr. John P. Bachman, medical director, State Welfare Department.

On October 17 a meeting of the Public Health Committee was attended by Dr. Bachman on the same subjects.

Both committees recommended that further publicity concerning the provisions and implications of this legislation be given to the profession.

The present law provides that all adoptions shall be instituted by filing an application in a probate court, together with the written agreement of adoption, the application to be signed by one or more of the parties to the agreement.

Public Act No. 203 differs from the present law in that this application may not be accepted by the probate court, unless the child has been placed for adoption by the State Welfare Commissioner or by an agency licensed by the State Welfare Commissioner excepting:

a. Where the application is made by a step-parent, sister, brother, aunt, uncle or grandparent of the child or

b. Where the child is received by the proposed adopting parent from an out-of-state agency with the written consent of the State Welfare Commissioner

SUMMARY

The recently enacted legislation concerning adoptions specifies that in nonrelative adoptions the child must be placed for adoption by the State Welfare Commissioner or an agency licensed by him. Medical and social studies have shown that agency adoptions are more often successful than independent placements. The professional relationship with the physician remains unaltered but he need no longer feel responsible for the placement of children of unmarried mothers nor for finding suitable children for adoption by prospective adopting parents. In order to insure the success of the new adoption laws, problems concerned with the referral of unmarried mothers will require intensive cooperation between the medical profession and child placing agencies.

and by further providing that the application may be filed in either the probate court of the district in which the adopting parent resides, or in the case of a child under the guardianship of the State Welfare Commissioner or an agency licensed by him, in the district where any office of the Welfare Commissioner or the licensed agency is located.

The act becomes effective July 1, 1958.

We are concerned mostly with the first provision quoted above. After July 1, 1958 it will be illegal for an individual physician to place a child with a prospective adopting parent other than a relative, except through a licensed child placing agency.

Of the 1177 adoption petitions filed last year in Connecticut, one half were filed by step-parents or relatives. Of the remaining 589 petitions, 389 were made by social agencies, the remaining 200 being independent placements made by physicians, attorneys or others. Of the 389 agency placements, 116 were made by the State Welfare Department. The implications for the private agencies in terms of requirements for increased staffs and appropriations are obvious.

It has been shown in studies made by AMATRUDA and BALDWIN (Am. J. Pediat. 38-2, February, 1951) and others that independent placements entail a much greater risk of failure than those made by social agencies. In the study referred to above of 100 independent adoptions studied in Connecticut, 46 were good in terms of a normal healthy infant satisfactorily placed with adequate healthy parents, 26 were questionable and 28 were bad, requiring termination before adoption was completed. In 100 agency placements also in Connecticut, studied at the same time, 76 were good, 16 questionable and 8 bad.

Under the new laws the physicians will continue to play an extremely important role in good adoption practice. They, by training and by virtue of their relationships with their patients, alone are capable of:

a. The evaluation of the health history and diagnostic findings of the natural parents and the prenatal and birth experience of the new born infant and the interpretation of these findings in relation to the child's future physical and mental health.
b. The evaluation of the physical, mental and emotional status of the prospective adopting parents including the etiology of their nonfertility, and the interpretation of these findings.
c. The prenatal care and delivery of the natural mother.
d. The health care of the new born infant and correction of remediable developmental abnormalities.

However, to the practicing physicians, the new laws bring relief from any obligation to find adoption homes for the children of unmarried mothers or prospective children for adoption by patients who are unable to have children of their own. The only obligation remaining to the physician in this respect is referral of the unmarried mother or prospective adopting parent to an appropriate child-placing agency.

In the case of unmarried mothers, referrals should be made as early in pregnancy as possible to give the agency an opportunity to work with the mother, help her to plan for herself and her child and if the decision is made to place the child for adoption, to obtain as much information of the background of the parents and child as possible.

There are a number of problems concerned with the referral of unmarried mothers which still require consideration by both the profession and the social agencies. These include:

1. Whether there should be a central agency in each community for the referral of all unmarried mothers;
2. The unmarried mother who has no financial resources;
3. The unmarried mother who is unwilling to be referred to any social agency;
4. The necessity for social agencies to accept all referrals.

These and other related problems will require, within the months before the law becomes effective, the best planning possible on the part of all concerned with sound child placement for adoption. To do this effectively needs the active cooperation of the medical profession. Your committees have planned further meetings with social agencies, educational material for the Clinical Congress and a panel discussion on these problems at the Spring meeting of the State Society. We hope that working together with social agencies on the problems connected with this legislation will bring about a better liaison between the two closely allied professions.

A.M.A. Plans Second Legal Conference In May

Legal problems currently facing individual physicians and organized medicine will be the primary discussion topics at the second meeting of state and county medical society executive secretaries and attorneys, May 9-10, at the Drake Hotel, Chicago. Before the final agenda can be set up, the A.M.A. law department hopes that medical societies will send in their suggestions on specific legal subjects that would be of the most interest to them.

CONNECTICUT MEDICAL SERVICE

Service Benefits And Income Limits In Massachusetts Medical Service

The enabling act which empowered the Massachusetts Medical Society to establish a nonprofit corporation for prepaid medical care insurance was passed in 1941. The basic principles incorporated into the act were similar to those of the corresponding act in Connecticut: 1. Free choice of physician; 2. Freedom of action for the physician; 3. Participation of all licensed physicians; 4. Subscriber representation in the corporation; and 5. Supervision by the state Commissioner of Insurance.

In the same year the Council of the Medical Society approved the by-laws of a corporation designed to carry out these purposes and to ensure fair and reasonable controls of the actions of the corporation in medical matters by the medical society which was to create and finance the corporation and was contributing the support of its membership to achieve its ends. These ends were *"to help alleviate the burdensome costs of medical care for the low income group and to avert the threat of compulsory health insurance or of compulsory reorganization of the medical profession into groups under lay or political domination."*

In February, 1942 the Council was asked to take definite action on a proposal relating to the corporation that had been established. This proposal was that income levels for eligibility for medical *service* contracts (contrasted to medical indemnity contracts) be set at $2,000.00 for an individual and $2,500.00 for a family. The proposed levels at that time covered 83.4 per cent of the wage-earning group among individuals and 91.4 per cent of the wage-earning group among families. As a practical matter at that time, labor drew the line between workmen and management at the $3,000.00 annual income level.

During World War II increases in wage scales reduced to about 65 per cent the proportion of wage earners covered by Blue Shield's income limits. In February, 1947 the Council of the Massachusetts Medical Society, upon recommendation of the Central Professional Service Committee of the Board, voted to increase the limit for a family of three or more persons to $3,000.00 annually.

By 1950 the Blue Shield Board of Directors had collected an abundance of evidence which indicated conclusively that to re-establish the original relationship between wage levels in the Commonwealth and Blue Shield income limits, it would be necessary to raise the limits to $5,000.00. A study of Massachusetts income tax returns for 1948 had revealed that 54.5 per cent of those that filed had incomes of less than $3,000.00 and 89,53 per cent had incomes of less than $5,000.00. Nationally in 1948, 79.3 per cent of all families had incomes of less than $5,000.00. $5,000.00 in 1950 could buy only as much as $3,000.00 in 1939 due to the increase in the cost of living. In February the Council of the Medical Society approved an income limit of $5,000.00 for both individuals and families to be used on a new Blue Shield plan to be known as Plan B. The income limits for the old plan (Plan A) were not disturbed. At the same time, the existing schedule of fees was increased an average of 64 per cent for Plan B.

The estimated average family income in the United States during 1955 was $4,400.00. About 40 per cent of the families had incomes of $5,000.00 or more, 40 per cent had incomes in the $2,000.00 to $5,000.00 bracket, and 20 per cent had incomes of less than $2,000.00. Half of those with incomes of more than $5,000.00 earned less than $7,000.00 a year. Effective family buying income in Massachusetts during 1955 averaged $6,124.00 for all counties. In terms of 1940 dollars, $6,124.00 was worth $3,393.00, and $7,436.00 which was the effective family buying income in Norfolk County (the top county in Massachusetts in this respect) was worth only $4,120.00.

The primary objective of Blue Shield is to meet the reasonable expectations of the public as a whole insofar as protection against the cost of medical care is concerned. For this reason it does a number

All of the material for this article was abstracted from the Annual Report of the Massachusetts Medical Service for 1956.

of things that other insurers generally avoid or are unable to accomplish:

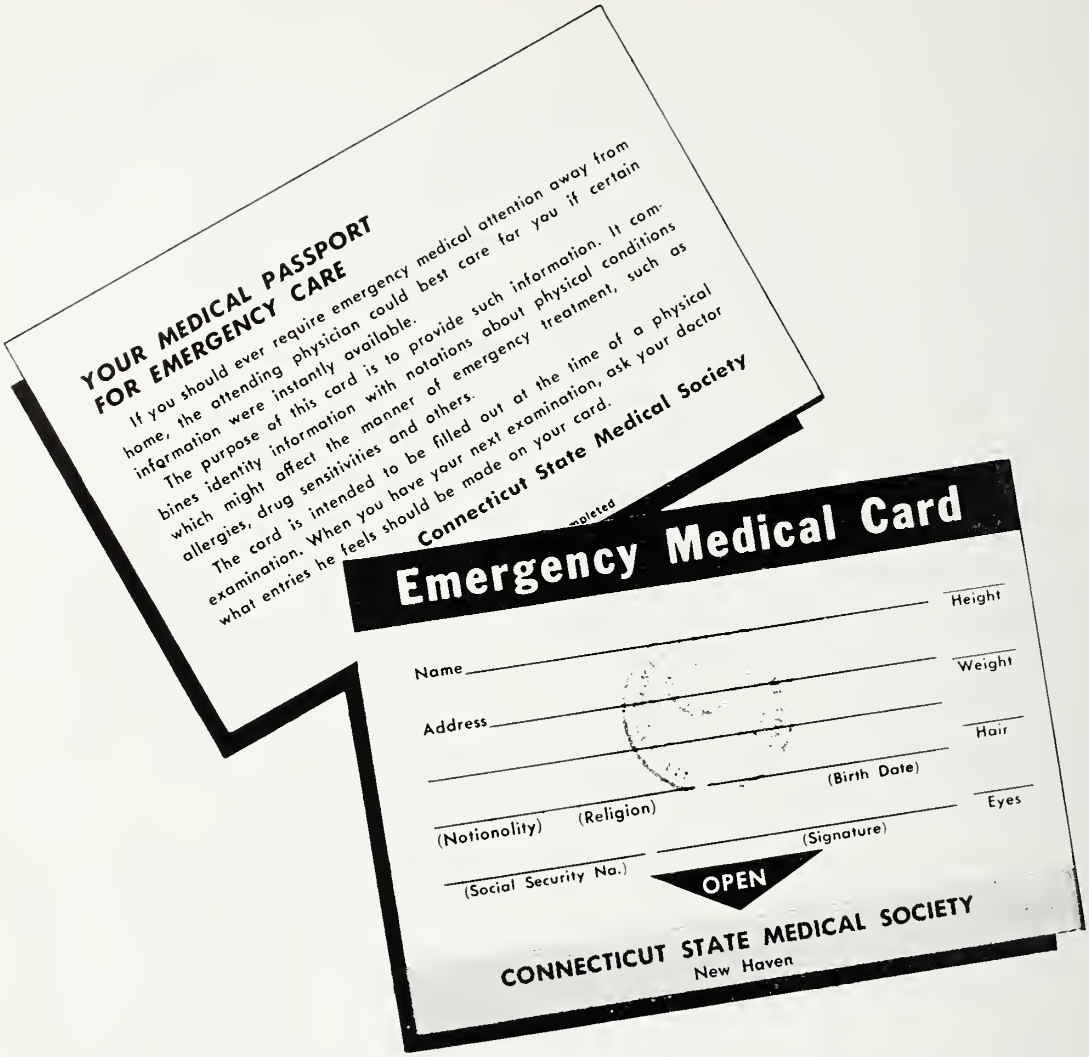
1. It sells its regular group contract at regular group rates where there are as few as five persons employed.
2. It sells its regular group contract at but slightly higher rates to persons who are unable to avail themselves of group membership.
3. It permits group members to retain their membership after leaving their place of employment or upon retirement.
4. It returns more than ninety cents out of each dollar taken in to its members in the form of actual benefits or reserves for future benefits required by law.
5. It uses only about six cents out of each dollar taken in for operating expenses.
6. It does not seek out and enroll only those groups that are apt to have a satisfactory claim loss experience.
7. It strives continuously to expand its benefits into uncovered areas of economic consequence on a rational basis designed to prevent unwarranted increases in the cost of medical care.

With 2,000,000 members, Blue Shield today covers more persons in Massachusetts than all other insurers combined. Most of its members are in groups so small as to be unattractive to others and a large percentage of its members have no group affiliation at all. While nongroup coverage is available elsewhere, benefits are frequently curtailed and administration expenses range from 20 to 40 per cent. Thus, Blue Shield is much more than a schedule of fees. It is, in addition, a mechanism whereby thousands of persons who would otherwise be unable to pay for their medical care are aided in becoming and remaining medically self-sufficient These "plus factors" cannot be overlooked in any discussion of Blue Shield fees and income limits.

Since 1950 the cost of living index has increased about 14 per cent. During the same period of time the following also have taken place:

1. Blue Shield has added 1,000,000 members, many of whom would not be eligible for adequate coverage at reasonable subscription charges from any other source. Blue Shield's total enrollment is now in excess of 2,000,000 members and if the present rate of growth continues it will soon cover one out of every two persons in the Commonwealth.
2. Seventy (70) per cent of all Blue Shield members have been enrolled in Plan B or have shifted from Plan A to Plan B. It is estimated that equilibrium between Plan A and Plan B membership will have been reached when approximately 80 per cent of all Blue Shield members are enrolled in Plan B. At the present time Plan A is sold to groups only when there are unusual circumstances involving collective bargaining and in such instances it is not unusual for the employer to contribute the Plan A rate with the employee paying the additional amount required to buy Plan B. It is clear that the number of indemnity-benefit members in Plan A is being reduced rapidly.
3. The number of Blue Shield members in the nongroup category increased 24 per cent—from 13.2 per cent to 16.4 per cent. Most of the 320,000 persons in this category are elderly and many are retired. With few, if any, exceptions they would be unable to obtain comparable coverage elsewhere at a price that they could afford to pay.
4. Eighteen (18) per cent of Blue Shield's membership already has been enrolled under the Blue Cross-Blue Shield Prolonged Illness Certificate which affords extended coverage of physician's services in the hospital and following discharge from the hospital. As more and more Blue Shield members are enrolled under this certificate, payments by Blue Shield to internists and other physicians who render nonsurgical services will increase greatly.
5. The annual incidence of Blue Shield services per 1,000 contracts in force has increased 50 per cent. Broken down between hospitalized and nonhospitalized patients, the increases are 36 and 81 per cent, respectively. Although some of the increase is due to the addition of new benefits, most of it is due to the fact that more and more Blue Shield members are receiving more and more services from Blue Shield participating physicians and Blue Shield participating dentists. During the same period the increase in hospitalization under Blue Cross, which added no new benefits, was 40 per cent.
6. The total annual payment for benefits provided to Blue Shield members has increased 250 per cent—from $7,230,453 to $26,594,508.

(Continued on Page 129)



YOUR MEDICAL PASSPORT FOR EMERGENCY CARE

If you should ever require emergency medical attention away from home, the attending physician could best care for you if certain information were instantly available.

The purpose of this card is to provide such information. It combines identity information with notations about physical conditions which might affect the manner of emergency treatment, such as allergies, drug sensitivities and others.

The card is intended to be filled out at the time of a physical examination. When you have your next examination, ask your doctor what entries he feels should be made on your card.

Connecticut State Medical Society

Emergency Medical Card

Name ______ Height

Address ______ Weight

______ Hair

(Nationality) (Religion) (Birth Date) Eyes

(Social Security No.) (Signature)

OPEN

CONNECTICUT STATE MEDICAL SOCIETY
New Haven

The Emergency Medical Card is designed to furnish information from the family physician about conditions which might affect emergency treatment, such as allergies, drug sensitivities, etc. It is especially useful for diabetics.

The card is intended for preparation following a regular physical examination. Medical information can be quickly noted on one side of the card, and the patient can fill in the other side.

This new card is really a message from one physician to another in time of emergency — medical protection for the many Americans who now travel away from their home communities more than ever before.

If you desire ten cards for test purposes, or would like to obtain a quantity of them at cost, use the coupon below.

Connecticut State Medical Society
160 St. Ronan Street
New Haven 11, Connecticut
Please send 10 Emergency Cards to:

Name .... M.D.

Address ....

....

Check enclosed for 100 cards: $3.00 ☐
200 cards: $5.00 ☐

PUBLIC RELATIONS

COMMITTEE ON PUBLIC RELATIONS

Harry C. Knight, Middletown *Chairman*	E. Tremain Bradley, South Norwalk	Ralph L. Gilman, Storrs
Harold A. Bergendahl, Norwich	Amos E. Friend, Manchester	James H. Root, Jr., Waterbury
James C. Canniff, Torrington	John L. Phiffer, Rockville	William A. Richardson, Noroton *Associate Member*

New Haven County Medical Association Publishes New Membership Guide

The New Haven County Medical Association has made available to its member physicians a new and comprehensive Guide to Membership.

Attractively printed with a map of New Haven County as a cover illustration, the 8 x 11 inch publication was prepared by the Public Relations Committee of the Association, James H. Root, Jr., Waterbury, chairman, Samuel B. Rentsch, Derby, and Morris A. Hankin, New Haven.

The publication contains useful information and the by-laws of the association. The foreword states that the purposes of the guide are to re-emphasize the importance of the county medical association as a basic unit of the American Medical Association; encourage member participation in county medical affairs; serve as a source of reference for the association's methods of operation, by-laws, standing committees, their services for members; and to provide a folder for bulletins and other information sent to members.

The folder which the foreword refers to accompanies the publication and is of regulation size so that it may be inserted in a standard filing drawer. The inside of the file cover contains 167 telephone numbers throughout the county which are frequently used by practicing physicians. The numbers include those of health departments, emergency medical call plans, hospitals, ambulance services, rehabilitation agencies, visiting nurse associations, voluntary health agencies and allied organizations.

There is reproduced in the lower portion of the folder a painting, The Coffee House, by Deane Keller, and several accompanying paragraphs tell of the part this meeting place played in the formation of the New Haven County Medical Association in January, 1784.

Additional information concerning the founding of the Association is also published in the guide and other sections are devoted to a statement of purpose, the meaning of association membership to physicians, relation of the county association to other organizations, the responsibilities and benefits of membership, the importance of medical ethics and a listing of the committees of the association.

Connecticut TV Committee Presents 1958 Educational Series

The use of anesthesia in modern surgery will be the subject of a telecast to be presented by the Connecticut TV Committee for Health Education from the studios of WHCT, Hartford, Channel 18, Saturday, February 15 at 4:30 p.m.

Mrs. Lydia Hewes, director of public relations, Hartford Hospital, is in charge of planning the production. The moderator will be Robert Wakeley, health education director of the Connecticut Division, American Cancer Society. Mrs. Hewes represents the Connecticut Hospital Association as one of the 18 leading health agencies which comprise the Connecticut TV Committee.

The February 15 telecast is the seventh in the 1958 series, which began January 4 and is continuing each Saturday at 4:30 p.m. as a public service in cooperation with WHCT.

A telecast on mechanical quakery was presente February 1 as one of three programs in the series sponsored by the State Medical Society, and two additional programs on first aid practices are to be sponsored by the Society on May 10 and May 17. Dr. Ludmil A. Chotkowski of Kensington was interviewed by Mr. Wakeley during the February 1 telecast and a number of devices seized in court action were loaned to the studio by the American Medical Association.

Other scheduled telecasts through May 31 will cover the use of tranquilizers, care of the eyes, chronic illness, poison control programs, adult diseases, cancer, mental health, and overweight.

New Britain Medical Society Receives Award

The New Britain Medical Society recently received its third successive award for meeting Community Chest quotas for physicians. The award was presented by Mr. Hoyt C. Pease, chairman of the 1957 campaign, at the annual dinner meeting of the society, January 22, at the Indian Hill Country Club. The presentation was received for the Association by Henry W. Kraszewski, president.

Harry C. Knight, Middletown, chairman of the Public Relations Committee of the State Medical Society, was the principal speaker at the dinner meeting. He outlined the development of national, state and local programs and commended the local society for the development of its emergency medical call plan and other community services.

New members of the society were introduced by Philip J. Moorad, chairman of the society's Indoctrination Committee.

First Program In Health Careers Series Held In Windham County

The first of a series of health careers programs for Connecticut high school students was recently conducted at the Killingly High School by the Recruitment Committee of the Woman's Auxiliary's to the Windham County Medical Association.

The program was conducted in three phases and devoted to careers in medical technology. Talks by medical laboratory technicians and films featured two of the sessions and the third comprised a visit by students to a local medical laboratory.

The program was planned in cooperation with the high school guidance department under the direction of Mrs. Bruce R. Valentine, chairman of the Recruitment Committee for the county. Similar programs are being planned by other county committees in the statewide project which will include film showings and talks before student groups by physicians, nurses, dentists, pharmacists and careerists in medical technology and other health fields.

Mrs. John A. Bucciarelli of New Canaan is chairman of the Recruitment Committee for the State Auxiliary.

Dr. Hastings Reappointed to Medical Examining Board

Louis P. Hastings, M.D.

Louis P. Hastings, Hartford, was recently reappointed to the Connecticut Medical Examining Board by Governor Ribicoff upon recommendation by the State Medical Society.

The reappointment marks the beginning of Dr. Hastings' eleventh year of service on the Board and became effective January 1 for a five year term. He serves the Board as examiner of pathology and related subjects and holds certification by the American Board of Pathology.

Dr. Hastings is full time pathologist at St. Francis Hospital, Hartford, where he has been associated since 1929. Previously, he was Assistant Professor of Clinical Pathology and Bacteriology at the University of Vermont.

Born in Springfield, Massachusetts in 1896, Dr. Hastings received his Bachelor of Science degree from the Massachusetts Agricultural College and his Doctor of Medicine degree from the University of Vermont College of Medicine in 1923.

Past president of the Hartford County Medical Association, Dr. Hastings is a member of leading professional societies, including the American Association for the Study of Neoplastic Disease, the American Association of Clinical Pathologists, the New England Cancer Society, and the New England Pathological Association.

Waterbury Association Plans Permanent Exhibit Of Medical Instruments

A permanent exhibit of medical instruments is being planned by the Waterbury Medical Association and will be housed in the Association's headquarters, the Castle Memorial, Central Avenue, Waterbury. William Finkelstein, president of the Association, has stated the exhibit will contain instruments which were displayed at the centenary celebration of the Association last October. Medical instruments for the exhibit have been contributed by many local physicians. A surgeon's case, carried by Dr. Alexander Warner of Pomfret while assigned to the Thirteenth Connecticut Volunteers in the Civil War, is included in the exhibit along with a collection of early medical volumes. A variety of ancient surgical instruments and medical equipment has already been collected for the exhibit and other contributions are anticipated.

University Offers Science Writing Program

Columbia University's Graduate School of Journalism has announced establishment of an advanced science writing program to be financed by a pilot grant from the Alfred P. Sloan Foundation. Under the program, selected young reporters and writers will be invited to spend an academic year at the University with all expenses paid. While only four to five full fellowships a year can be financed under the initial grant, it is hoped soon to expand the program to provide for ten fellows a year. Medicine is represented on the advisory board which has been set up to handle the program.

Said Alfred P. Sloan: "Large scale scientific development depends, in the last analysis, on public understanding. This understanding, in turn, is possible only if scientific news is intelligently and fully reported. We are confident this program will be an important step in helping achieve this goal."

LETTERS TO THE EDITOR

CONNECTICUT ACADEMY OF
GENERAL PRACTICE
410 Asylum Street Hartford 3, Conn.

December 26, 1957

To the Editor:

Enclosed is an article that appeared in the editorial section of the December 19, 1957 issue of The Hartford Times.

I am submitting this reprint for insertion in the next issue of the Connecticut State Medical Journal.

Sincerely,

Peter J. Scafarello, M.D.
Treasurer, C.A.G.P.

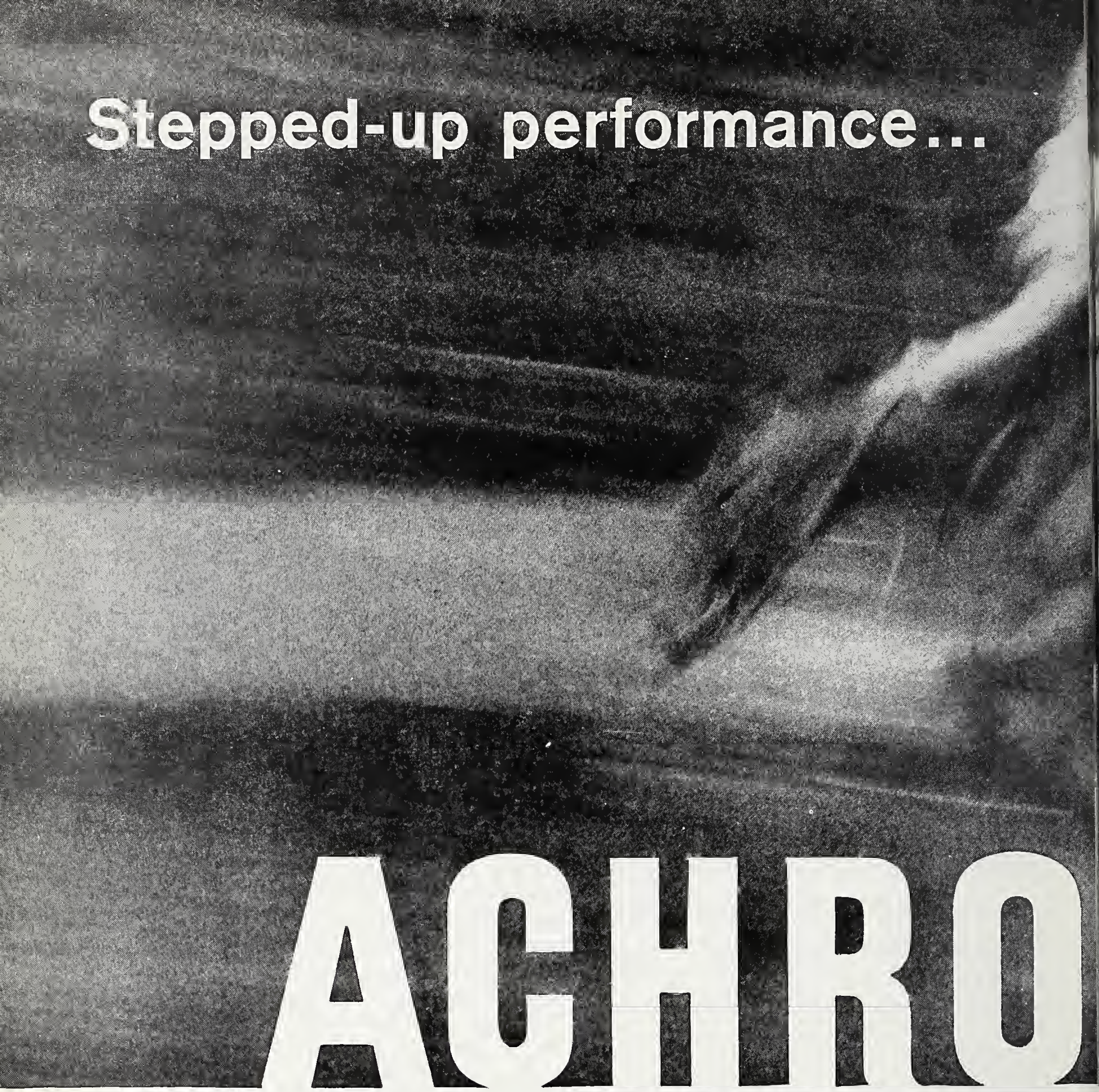
The Family Doctor

The family doctor's praises were sung the other day at a meeting of the Connecticut chapter, American Academy of General Practice.

General practice has been somewhat neglected in the medical profession over the past 20 or 30 years. Young men with long years of expensive training behind them frequently, indeed usually, preferred to invest a few years more and become specialists. Specialization gave them, they believed, higher income, more regular hours, greater freedom from interference with their private lives and an opportunity to contribute to medical knowledge. Lately there have been signs of a reversal of this trend. More and more recent medical graduates have been assessing the advantages of general practice as greater than its liabilities.

The family doctor knows his patients more intimately than the specialist can. He is aware of their family problems, their economic state, their emotional attitudes and, if he is old enough, the illnesses of their parents. He may not become wealthy as some of the men in his profession in a large city, but he can live more than just comfortably in a small town where he is known, respected and appreciated. He is friend and advisor as well as physician.

(Continued on Page 138)



New rapid-acting ACHROMYCIN V Capsules offer more patients consistently high blood levels—at no sacrifice to the broad anti-infective spectrum of ACHROMYCIN Tetracycline, its low incidence of side effects, or its dosage and indications.

The pure, unaltered crystalline tetracycline HCl molecule of ACHROMYCIN, now buffered with citric acid, provides

Tetracycline HCl Buffered with Citric Acid

prompt and high blood levels, faster broad-spectrum action ...rapidly decisive control of infections. New ACHROMYCIN V Capsules do not contain sodium.

REMEMBER THE V WHEN SPECIFYING ACHROMYCIN V

CAPSULES: (blue-yellow) 250 mg. tetracycline HCl (buffered with citric acid, 250 mg.); 100 mg. tetracycline HCl (buffered with citric acid, 100 mg.). **ACHROMYCIN V DOSAGE:** Recommended basic oral dosage is 6·7 mg. per lb. body weight per day. In acute, severe infections often encountered in infants and children, the dose should be 12 mg. per lb. body weight per day. Dosage in the average adult should be 1 Gm. divided into four 250 mg. doses.

LEDERLE LABORATORIES DIVISION, AMERICAN CYANAMID COMPANY, PEARL RIVER, NEW YORK Lederle
*Reg. U.S. Pat. Off.

WORLD MEDICAL ASSOCIATION

CONNECTICUT COMMITTEE

Stanley B. Weld, *Chairman*, Hartford

John H. Foster, Waterbury
Amos E. Friend, Manchester
Alfred Labensky, New London
Thomas F. V. LaPorte, Bristol
Andrew M. McQueeney, Bridgeport
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Royal A. Meyers, Watertown
Walter I. Russell, New Haven
William M. Shepard, Putnam
Oliver L. Stringfield, Stamford
F. Erwin Tracy, Middletown
Walter Weissenborn, Hartford

The World Medical Association is now ten years old. The following article is offered to our readers that they may have a clearer understanding of just what the purposes are for which WMA was organized.

Background and Preliminary Organization

In 1926 there was organized an international medical association known as "L' Association Professionele Internationale des Medecins". Originally there were 23 national members of this organization. The number dwindled somewhat and at the time of the Second World War it suspended operations. During the war doctors of all the allied nations congregated from time to time at the British Medical Association House and discussed medical problems.

International Medical Conference

In July, 1945 an informal Conference of doctors from several countries was called by the British Medical Association. This small group to initiate plans for an international medical organization. Accordingly, a second Conference was held in London in September, 1946. Medical associations of 31 countries were invited and 29 sent representatives either as Delegates or as Observers. An Organizing Committee was appointed and directed to draft a Constitution and plan for the first General Assembly. This Conference decided that the name of the new organization should be "The World Medical Association" and that it should have broader activities and wider membership than the former "L' Association Professionelle Internationale des Medecins." Officers of the A.P.I.M., having attended the Conference, recommended to its membership that it dissolve in favor of The World Medical Association. This recommendation was accepted and A.P.I.M. generously turned over its remaining funds to W.M.A.

The Conference outlined the general aims of the new association and decided that the unit of membership should be the national medical association of the country with all member associations having equal voting power. It was further agreed by the Conference that a provisional joint Secretariat should be established in London and Paris. Two Secretaries were named, one from England and one from France, and a Treasurer from Switzerland was designated. An Organizing Committee representing nine countries was formed and Dr. T. C. Routley of Canada was named Chairman. At the second meeting of the Organizing Committee held in Paris in November, 1946 it was decided to invite the American Medical Association to name one of its members to serve on the Organizing Committee. Dr. Louis H. Bauer was appointed with Dr. Elmer L. Henderson as Alternate.

The final meeting of the Organizing Committee was held in Paris the day before the convening of the First General Assembly. At this meeting the American delegation offered to contribute $50,000 a year for five years to facilitate early progress of the Association. After discussion the Committee voted to recommend that the offer be accepted by the General Assembly subject to the following provisions:

(1) That one of the objectives of the Association should be "to promote world peace";

(2) That the money so contributed be used for the expenses of the headquarters and Secretariat, and the publication of a bulletin or journal;

(3) That the cost should not be more than $50,000 during the first year;

(4) That the headquarters of The World Medical Association should be established in North America;

(5) That the Council of The World Medical Association should appoint the Secretary and other staff; work out a scheme of associate membership; recommend the formation of supporting committees in other countries; prepare plans of development; and

(6) That nothing diminish the authority of the General Assembly for full control of the policy and affairs of the Association.

In the Constitution which was adopted along with the By-Laws at the Conference of Delegates of the First General Assembly the objectives of the Association were specified as follows:

(1) To promote closer ties among the national medical organizations and among the doctors of the world by personal contact and all other means available.

(2) To maintan the honor and protect the interests of the medical profession.

(3) To study and report on the professional problems which confront the medical profession in the different countries.

(4) To organize an exchange of information on matters of interest to the medical profession.

(5) To establish relations with, and to present the views of the medical profession to the World Health Organization, U.N.E.S.C.O., and other appropriate bodies.

(6) To assist all peoples of the world to attain the highest possible level of health.

(7) To promote world peace.

Officers were elected, the first Council of ten members of the First General Assembly was elected and The World Medical Association was fully launched, and at once the Association began discussion of a variety of topics.

Connecticut Medical Service

(Continued from Page 121)

7. Medical educators in Massachusetts and elsewhere have become increasingly disturbed because of the dwindling supply of service ward patients who traditionally have been used for teaching purposes.

On February 6, 1957, the Council of the Massachusetts Medical Society voted to increase the Blue Shield Plan B income limits from $5,000 for all to $5,000 for an individual, $6,000 for a husband-and-wife and $7,500 for a family of three or more persons. This action was reaffirmed on May 20, 1957. This was done without any immediate increase in the over all fee schedules, although there have since been adjustments in the fees for medical (nonsurgical) services and for the more highly specialized surgical services. Whether or not these adjustments will result in adequacy and equitability only time will tell.

When Connecticut Medical Service was established in 1949, the Service Benefit income levels were set at $2,500.00 for an individual, unmarried member, $3,000.00 for a subscribing member with one enrolled family member, and $3,500.00 for a subscribing member with two or more family members. A revision of the contract in April, 1951 with increased surgical benefits also increased the Service Benefit levels to $2,800.00, $3,500.00 and $4,500.00, respectively. When the Preferred Contract was introduced in 1954, again with a substantial increase in surgical payments, the income levels were established at $3,000.00, $4,000.00 and $5,000.00. At that time a new lower income contract was offered with Service Benefit levels even lower than those which had been established for the Standard Contract, namely, $2,250.00, $3,000.00 and $3,750.00.

Consistent with its desire to increase the services offered its subscribers and the payments made to participating physicians, Connecticut Medical Service now has under study a new contract which will supplement but not replace the existing ones. Since increased benefits mean increased charges to the subscribers, it follows that some adjustment of Service Benefit income levels must also be made. The preceding review of the experience in Massachusetts provides an interesting basis for comparison and consideration with regard to this problem in Connecticut.

NEWS FROM WASHINGTON

Action On Forand Bill

Rep. John Fogarty (D., R. I.), chairman of the House subcommittee that handles appropriations for nearly all U. S. health programs, predicts that Congress will vote a program of federal assistance to the aged for their hospital needs in 1958. The major bill on this subject is sponsored by a fellow Rhode Island Democrat, Rep. Aime Forand. It would amend the social security system to permit the aged social security beneficiaries and their dependents and survivors to get free hospitalization and surgical services. The bill has the official support of the 13½-million member AFL-CIO.

Speaking to a meeting of the Washington chapter of the National Association of Social Workers, Mr. Fogarty cited several reasons for his belief that Congress would enact some legislation on hospitalization for the aged: (1) growing unemployment, which he feels may reach six million by next March, will put pressure on legislators to do something, and (2) it is an election year. The Forand bill can be amended, he said, and the final measure may not resemble it as now written.

The Rhode Island congressman also favors increasing monthly social security benefits, reducing the retirement age for both men and women to 60 and making social security payments available to the disabled regardless of age.

The AFL-CIO at its annual convention urged liberalization of social security, indorsed the Forand bill and proposed a 10 year extension of the Hill-Burton hospital construction program.

The outlook for legislative action on HR 9467 in Congress is dimmed by the crowded agenda of the House Ways and Means Committee. Executive sessions on excise tax legislation already have been scheduled and the issue is expected to occupy much of the Committee's time well into the second session. A big fight and long committee hearings also loom over legislation to extend reciprocal trade legislation, an issue that probably will take priority over social security bills. It is unlikely that the Senate will act on a bill similar to HR 9467 before the House does. But it is quite possible that there will be hearings on HR 9467 before the 1958 session ends and maybe even a vote. Final action in both the House and Senate in 1958, however, is extremely doubtful. Bills left over from the 1958 session must be re-introduced in 1959. But the interest in HR 9467 is certain to give new prominence in and outside Congress to the problem of how to protect the rising number of aged in the Nation against having their savings wiped away by medical expenses.

Disability Checks Under Social Security Near $10 Million A Month

Social Security Administration, taking stock of nearly six months operation of its disability payments program, estimates that about 131,000 persons are getting payments. By next July the total on rolls should be around 200,000. SSA notes that average payments to the disabled are $72.24 a month. This compares with the national average of around $65 for all other retired.

This is explained in part by the fact that (a) the national average takes in many older persons who were not fully employed in previous years and (b) wages have gone up since the 1930's and early 1940's. The disabled covered, on the other hand, come more recently from the labor market.

On the basis of 200,000 on the rolls next year and assuming the average monthly payment is unchanged (which is unlikely), the Disability Trust Fund will be paying out at the annual rate of nearly $175 million. SSA estimates that the fund had $525 million in it as of September. This is derived from the 0.25 per cent payroll tax increase that went into effect last January. Note: At the time of the hearings on the disability proposal, HEW Secretary Folsom pointed out that the program for the first full year would cost close to $200 million, rising to around $900 million in 1980.

In a separate report, the agency reminds those disabled workers who were eligible for payments last July that they may lose up to $651 in retroactive payments if they don't apply by the end of December. Under the law, eligible persons who make application this month can be paid benefits going back to July 1. Payments range from $30 to $108.50 a month, depending on the workers' average monthly earnings under social security. Application for disability can be made at any one of 560 SSA offices and they must be received by December 31. Disabled filing after this month will be paid for the month in which they apply, but not for any prior period of disability.

VA Reports Progress In New Compound Against High Blood Pressure

Striking effectiveness is reported this week by the Veterans Administration with a new synthetic compound with other drugs in treating high blood pressure. An eight-months study of 105 veterans has been made and research is continuing. The compound is known as chlorothiazide. Dr. Edward D. Freis of the VA hospital in Washington said that use of the new drug tends to reduce unpleasant effects from other drugs. Further, it was found that the compound is effective when used alone but even more so when used in combination. Older drugs caused a 11 per cent drop in pre-treatment level of high blood pressure, while combinations with chlorothiazide gave an average reduction of 27 per cent, he reported.

How U. S. Scholarship Program Would Affect Medical Students

Premedical students would be eligible for scholarships under the administration's new program, but with a four year time limit on the benefits, the students would have to finance most of their medical school education in some other way. This is the way one source in the Department of Health, Education, and Welfare said the program would affect medical education:

1. Each year for the next four years the U. S. would provide 10,000 scholarships for bright students, the amount depending on the student's needs. Preference would go to those with good preparation in mathematics and science.

2. Students themselves would decide what college course to pursue; it could be premed or any other.

3. While scholarships generally would not be offered to students in medical school, on graduation they would be eligible for fellowships; these could be of material help in increasing the number of medical school teachers.

The administration also contemplates expanding several National Science Foundation grants and fellowships programs, including one open to medical school graduates; this is pointed toward medical research or careers on medical faculties. NSF's greatest expansion, however, probably will be in summer institutes for high school mathematics and science teachers.

"Home Peril" File Going To Poison Control Units

Newly established National Clearinghouse for Poison Control Centers will declare its first big dividend next month. All of the units—some 115 of them in towns and cities from coast to coast—will get a card file listing by their trade names 500 household products which may be dangerous if misused. Toxic ingredients, symptomatology and antidotes will be described.

Dr. Howard M. Cann, a pediatrician, heads professional staff of the clearinghouse, which is a part of the Accident Prevention Program in Public Health Service. Set up earlier this year, the unit's mission is to disseminate information on prevention and treatment of poisoning, stimulate research and encourage establishment of local centers.

Folsom Cites Health And Welfare Gains In 1957

Secretary Folsom, in a year-end review of Health, Education, and Welfare's activities, notes further progress in health, a steady growth of the social security system and a reawakened interest in educational problems. "These and many other developments are reasons for renewed confidence in the strength and resourcefulness of the American people," he states. Some highlights of the Folsom summary:

Health Facilities—About $123 million in federal money was allocated for building 483 general, tuberculosis, mental and chronic disease hospitals plus rehab and diagnostic centers and nursing homes. *Social Security*—Beneficiaries have risen from 9.3 million to over 11 million, including 150,000 disabled workers age 50-64; disability payments accounted for $60 million and expenses $5 million. *Health Research and Training*—Of the $211 million for NIH, $110 million was grants to states and for research by labs, medical schools, hospitals and individual scientists. Another $39 million was spent to train promising research scientists. *Communicable Diseases* — Such diseases continued their steady decline.

Medicare Policy On Acute Mental Disorders Restated

Office for Dependents' Medical Care restates in a policy declaration that the government will pay civilian physicians and civilian hospitals for up to 21 days of hospitalization for treatment of acute mental and nervous disorders. An acute case is defined as constituting "an emergency requiring hospitalization for the life, health or well-being of the patient regardless of psychiatric diagnosis." ODMC says extensions beyond 21 days for short periods may be considered when (1) there is necessity for more time for the sponsor to assume responsibility, (2) retention in the hospital for two or three weeks will result in cure or remission permitting the patient to return home, or (3) underlying diagnosis for determining length of care can't be made in 21 days.

Commissions In Armed Forces

Enough young physicians under the Berry plan have applied for commissions to take care of the military's medical requirements through June, 1959. But Defense says there is still a need for applicants for training in these specialties: otolaryngology, pathology, general practice, preventive medicine and public health, physical medicine and rehabilitation, and occupational medicine.

Many Bills Introduced Into Congress; First Hearings Scheduled

First week of new session of Congress had its usual share of new bills with health or medical implications. Rep. James Roosevelt (D., Calif.) filed group of social security amendments raising benefit payments and limitations on earnings and effecting other liberalizations. One of the bills would bring physicians under compulsory coverage. Rep. John E. Fogarty (D., RI) introduced HR 9822, authorizing holding of a National Conference on Aging. Like Rep. Roosevelt, he delivered a lengthy speech on House floor describing bill's provisions and purposes.

Medical Measures Again Stressed In U.S. Budget

The Eisenhower budget for running Federal government in 1958-59 is kind to health and medical items, in light of heavy cuts made in some domestic programs to permit big raises for missile development and defense requirements. Federal grants in aid for medical education and research actually will be considerably greater. Existing programs in Public Health Service, Atomic Energy Commission and Veterans Administration will be continued at financial levels comparable with this year's and, in addition, the huge expansion of National Science Foundation activities will leave par of their mark on medicine and other life sciences.

Most conspicuous cutback, in health area, is the Hill-Burton hospital construction aid which is reduced to $75 million, which compares with $121.2 million allowed for current year. It is unquestioned that valiant effort will be made in Senate and House to raise the allowance to at least $100 million.

Medical Advisory Group Still Has Dr. Hess Only

A bulletin issued by Selective Service headquarters calls attention again to fact that SS has had no medical advisory committee for past six months. The document explains duties of the committee under provisions of the 1957 law relating to military liability of physicians and surgeons which replaced the old doctor-draft act. But since last July the committee has had only a chairman, Dr. Elmer Hess. Even high level medical officials in Federal agencies — civilian and military — are baffled by White House delay in appointing members to this advisory group which, when functioning, wears a second hat as medical counselors to Office of Defense Mobilization.

Many physicians and dentists belonging to state affiliates of the national advisory committee are resigning in the belief that the parent group has folded up. The most likely explanation of the delay is that the volcanic Dr. Hess is having difficulty finding seven men and women of stature who are willing to serve with him.

FROM OUR EXCHANGES

Silver and Nagel, writing on "The Effects of Chronic Administration of Tolbutamide (Orinase) in Aged Diabetics" (*Maryland State Med. J.* 6:11, Nov. 1957) report their observations with use of this drug on 20 aged persons between the ages of 69 and 87 years. All had been known diabetics for over 15 years and had been controlled with diet and insulin. On a strictly controlled diet each patient was given an initial dose of six tablets (3 gms.) on the first day followed by three tablets daily thereafter. The exogenous insulin was not reduced. Proper laboratory work was done throughout.

At first the results were discouraging; only after 100 days was it possible to reduce the insulin dosage. After eight months, however, all but three patients were being maintained without insulin and with fasting blood sugar between 90 and 120 mgm. The three patients requiring insulin needed 40 per cent of their original dosage, hence were maintained on combined therapy. There were no side effects reported. In case of any stress such as infection, operation or emotional strain, patients on tolbutamide entirely required insulin for control of their diabetes. It is suggested that tolbutamide stimulates the suppressed beta cells enabling the patient to produce an adequate supply of endogenous insulin for control.

* * * *

"The Management of Upper Gastrointestinal Bleeding" is dealt with by Manson in the *Journal of the Tennessee State Medical Association* (50:11, Nov. 1957). A surgeon should be called in immediately in such cases since one cannot tell at the onset of bleeding whether the patient requires medical or surgical treatment. A careful history and physical examination are of primary importance. Complete blood work-up including Rh and cross matching and the bromsulphthalein test should be done immediately. Careful x-ray studies, with the physician accompanying the patient, should not be postponed until bleeding has stopped. Even emergency esophogoscopies or gastroscopies may be done in skilled hands.

Treatment must be energetic and prompt. Intravenous glucose in saline is indicated whether or not shock is present. Whole blood transfusion should not be delayed if the blood indicates a definite anemia. A decision as to medical or surgical treatment must be reached within the first 48 hours to prevent a prohibitive mortality, should operation be necessary. Seventy five per cent of patients recover with conservative management, including adequate blood replacement.

Surgical treatment is the choice when there is recurrent bleeding while the patient is under hospital treatment, or where there are also signs of perforation or obstruction. Repeated attacks of syncope are important and usually indicate surgical intervention. Subtotal gastrectomy is the operation of choice. Barbiturates, antispasmodics, hourly feedings and antacids comprise an important part of medical treatment. Because of its high mortality rate, early operation in bleeding varies, is best treated with intubation and a vigorous medical regimen.

* * * *

Believing that prolonged medical observation and dependence upon radiologic diagnosis is nearly always fatal in such disease states as cholecystitis, pancreatitis, duodenal ulceration and cancer, Forester, Hartford and Welsh ("Duodenal Aspirations", *J. Okla. State Med. Soc.,* 50:11, Nov. 1957) plead for greater use of cytologic studies of duodenal aspirations. This method does not depend on the size or the duration of the new growth. An Einhorn gastroduodenal tube is used. An increase in the number of inflammatory cells in desquamations from the organs and ductal systems noted above may prove equally as important as the finding of neoplastic cells.

* * * *

Blumenthal and Fuchs have given us an excellent resume on "Chronic Headache" in *Medical Annals of the District of Columbia* (XXVI:11, Nov. 1957). They report on a study of 1,254 patients observed over a period of six months to ten years. Three classifications of headache are offered, viz., vascular, tension and nonvascular, with subdivisions of the first group into histamine headache, migraine headache, hypertensive headache, and temporal arteritis. The nonvascular group is divided into muscle tension headache and conversion reaction. They caution us that headache is to be interpreted as one of the most common symptoms the body uses to warn the patient that his limits have been exceeded.

Conversion reaction headache is included in the nonvascular group because of its unique character. It is pointed out that in this form of headache there is no specific type of pain as there is in each of the other types. Frequently lightning-like thrusts of pain are experienced in one or the other parts of the head but never localized to a specific artery or muscle and usually fleeting and severe. Therapy is not too successful with this type of headache. Sedatives or analgesics and physical therapy are suggested and in some instances psychotherapy and muscle-relaxing drugs.

Specific therapy is outlined for each of the other types of headache. Prevention of attacks is the most important approach.

* * * *

Trustee (10:11, Nov. 1957) carries a condensed article by Cathcart entitled "Why Pennsylvania Hospital Added G. P.'s to a Specialist-Dominated Staff" and taken from *Hospitals.* There were several conditions, seven to be exact, which existed in that hospital which called for possible correction. The method used was the one recommended by the House of Delegates of the American Medical Association. A division of general practice was set up in the hospital, limited to administration and education and without a clinical service. Integration of the general practitioner into the division of medicine has been smooth. On the two occasions integration has been tried into the division of obstetrics and gynecology it caused no serious difficulties. The real test apparently is yet to come when integration is attempted into the division of surgery.

* * * *

If you want to save time (and expense, say the authors) in diagnosing roundworm infection, Bumbalo *et al* advise x-rays of the small bowel ("Roentgenologic Diagnosis of Roundworm Infection," *N. Y. State J. Med.* 57:23, Dec. 1, 1957). Repeated examinations of stools often fail to reveal eggs. For x-ray diagnosis the usual preparation for an upper gastrointestinal series is all that is needed. Serial films of the small bowel at 30 minute intervals are studied. The worms are usually curved or coiled and vary from 2 mm. to 1 cm. in width. The filling defect will vary from 2 to 10 cm. Instead of the latter, less frequently the barium may be seen in the gut of the worm.

* * * *

Reports of the efficacy of two new products, Doxinate and Danthron, for the relief of chronic constipation have been appearing in the literature. Socha reports on the results obtained with these drugs in a series of 74 male patients in an institution ("Use of Doxinate with Danthron as Withdrawal Therapy in the Treatment of Chronic Functional Constipation," *J. Mich. State Med. Soc.* 56:11, Nov. 1957). Doxinate produces a soft stool and where an addictional mild peristaltic stimulant is desirable Danthron is added. The dosage is gradually reduced, Danthron being omitted early in the course of treatment. In this particular series treatment was continued for at least six weeks. Other authors have found a shorter period of treatment sufficient before withdrawing the drug. These two new products seem well suited in relieving constipation in pregnant women.

* * * *

"Some Social-Psychiatric Aspects of Pregnancy and Childbearing" by Gordon and Gordon *(J. Med. Soc. New Jersey,* 14:12, Dec. 1957) reports a study made on 56 outpatients with emotional disorders arising during pregnancy and the immediate puerperium. These data are compared with similar data from interviews with 118 private patients delivered of normal infants. Included are 87 emotionally disturbed young married women referred for outpatient psychiatric examination and care, unassociated with pregnancy or childbirth.

The findings indicate that intermarriage places a particular burden upon the wife and is disproportionately associated with emotional disorders in women of all ages. Suburban migration places a strain on pregnant women. These obstetrical-psychiatric patients had almost twice as many older parents in proportion as did the controls. Changing homes, absence of husband, and no additional assistance following childbirth all contribute to added emotional strain. An unusual finding perhaps was the fact that unplanned and female children were more often associated with emotional disturbances of childbearing.

"Therapy of Hypertensive States in Pregnancy from the Internist's Standpoint" by Finnerty and Buchholtz was published in *G. P.* in November, 1957 (XVI:6). It is a long article and affords the reader first a classification of patients who may be suspected of having toxemia of pregnancy, dividing this group into those with (1) edema, local or general; (2) elevated blood pressure with normal eye grounds; (3) elevated blood pressure with abnormal eye grounds; (4) hypertension plus edema; (5) pyelonephritis masquerading as toxemia; (6) pure toxemia; and (7) hypertensive vascular disease plus toxemia. Local edema alone is not toxemia nor pretoxemia. Six to eight per cent of those with generalized edema develop toxemia. Elevated blood pressure alone does not require a diagnosis of toxemia and should not call for hospitalization. Retinal hypertension changes in a pregnant woman with an elevated arterial pressure is not toxemia. True toxemia does not exist if hypertension is present with edema. Because two of the three criteria of toxemia are present, many will not agree with this statement. Pyelonephritis should not be labelled renal type of toxemia as it is a chronic infection which can be proven by miscroscopic urinalysis and urine culture.

True toxemia has these diagnostic findings: rising diastolic pressure, edema, albuminuria, and frequently a generalized retinal sheen. Nothing is said of spasm in the retinal arterioles. A pregnant woman with a past history of hypertension should be suspected of having toxemia if she develops periorbital and ankle edema and albuminuria. Toxemia tends to appear earlier in the hypertension patient.

In the above conditions which are not classified as true toxemia, out patient treatment with hypotensive drugs, except in pyelonephritis, is carried out. True toxemia requires hospitalization where the treatment is varied according to whether the patient falls into the mild nonconvulsive group, the severe nonconvulsive group, or the convulsive group. The use of reserpine, hydralazine, acetazoleamide, chlorothiazide, and Veratrum viride are discussed in some detail.

This article appearing in a general practitioner's journal may give its readers a sense of false security where such should not exist. Recognition of the early signs of toxemia in pregnancy is extremely important if eclampsia is to be avoided.

"Major Surgery in Patients Over 80" (Ficarra, *J. Am. Geriatric Soc.*, V: 10, Oct. 1957) points out the two major problems in surgical patients of this age are azotemia and choice of anesthesia. Of the three types of azotemia, prerenal, renal and postrenal, the commonest is prerenal. This type may be of rapid onset associated with acute abdominal symptoms. Postrenal azotemia is usually due to prostatic hypertrophy in men and to uterine fibroids in women. Intravenous fluids will readily correct azotemia.

In choosing anesthesia for this age group a balanced form is preferable. Spinal anesthesia may still be used but does not hold first priority as it did once. Local anesthesia is excellent for the elderly poor risk patient, usually supplemented with pentothal and muscle relaxants and even with cyclopropane and 100 per cent oxygen in equal parts. Cyclopropane is contraindicated in the presence of cardiac arrhythemia as it may precipitate a partial heart block.

* * * *

"Trauma and Its Relation to Cancer" *(Rocky Mt. Med. J.*, 54-12, Dec. 1957) is discussed by an attorney who found much conflicting opinion expressed by the medical profession on this subject. Because of the uncertainty expressed by physicians the courts have used language which may be a bit disturbing to the cancer expert.

It is not always necessary to establish trauma as the cause of cancer. Especially in workmen's compensation and occupation disease cases, aggravation and/or acceleration may be all that must be proved.

This is the type of case where it is particularly necessary for the physician to keep complete and accurate records. The attorney for the plaintiff, being aware of the difference in medical opinion as to cause and effect of trauma and cancer, must secure the best medical experts who will support his thesis. He also should pay his own doctor for time devoted to a discussion of the various theories as to the cause of cancer.

All of this uncertainty and legal shenanigans may some day vanish in thin air when the cause of cancer is settled. We look forward eagerly to that day.

WOMAN'S AUXILIARY

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THE GLAMOR OF AUXILIARY FUNDAMENTALS

Mrs. George Turner

No organization is ever greater than the cause which brought it into existence. No group springs suddenly into usefulness but is a gradual growth of an idea that has been nurtured, perhaps, through centuries of development. The Auxiliary is no exception.

We think in terms of 1918 (Texas organization) and 1922 (national organization) but actually we are forced to recognize the fact that organization of doctor's wives into National-State-District-County bodies was a mere recognition of a long existent status. Where then did the Medical Auxiliary idea start? In whose mind was the idea first conceived? We could give the credit to some witch doctor's wife. Instead let us give this honor where it is due—to Phaenarete, a Greek doctor's wife (Heraclides) and the mother of Hippocrates who was destined to be the Father of Medicine because he wrote the Oath of Hippocrates, the original Code of Ethics, and separated the practice of medicine from his own office and received a fee from his patients for service rendered. The history of medicine gives the credit for Hippocrates' success to his mother who guided her son's interest in medicine until he was placed in training for the profession.

When American women were just beginning to take an active interest in community affairs, doctors' wives became stimulated by a sincere desire to understand Health Problems and to help in the solution of these problems. Our first auxiliaries were formed by doctors' wives who habitually attended the medical meeting with their husbands and who had become a bit bored by the entertainment—teas, luncheons, receptions, shopping tours, and sight seeing trips—provided by the local committee.

The family tree of the W. A. to the A.M.A. springs from roots deep in Texas soil. One day at a reception she was giving in her home in Dallas, for the wives of the S.M.A. which was meeting in Dallas, Mrs. John O. McReynolds asked one of the guests how she liked Dallas? The guest replied, "Very much, indeed! I have lived here 30 years." This WAS food for thought! So, before the Texas Medical Association was to meet in Dallas in May, 1917, Mrs. McReynolds called the Dallas doctors' wives together at her home and suggested they form an organization so that they would know each other from their guests. Dallas County Auxiliary was formed and Mrs. McReynolds was the first president.

The idea caught on like wild fire, and in June, 1917 McLennan County was organized; in October, 1917 Bexar County was organized and on May 13, 1918 the W.A. to the Texas Medical Association was organized in San Antonio and Mrs. E. H. Cary of Dallas was elected the first state president.

By June, 1922 it was discovered there were several state groups of doctors' wives—Oklahoma (1907); South Dakota (1910); Maine; Montana—which held meetings at the time of their state medical association meetings but there was only

This paper is based on the pamphlet, "Resolutions and Policies" given before the El Paso, Texas, Auxiliary, 1957.

one state auxiliary organized and functioning on the state-district-county levels. This state was Texas.

By 1922 the Texas Auxiliary was four years old and the next state convention was to be held in El Paso early in May at Hotel Orndorff. Mrs. R. B. Homan, Sr., called a meeting of the El Paso doctors' wives and organized the El Paso County Auxiliary just prior to this convention—so that we would know each other from the guests! Mrs. Homan was our first president; later, state president; and later, National Archives Chairman which office she held at the time of her death.

In 1922 remains the history making year for the Auxiliary movement for it was at this meeting, here in El Paso, that Mrs. S. C. Red (Houston) our state president revealed her plans for a National Auxiliary, similar in aims and purpose to the Texas Auxiliary. She presented the idea by a resolution which passed through channels—House of Delegates of the Texas Auxiliary, the Texas Medical Association, and later, the House of Delegates of the AMA in St. Louis, May 21, 1922.

In June, 1923 in San Francisco a permanent organization was perfected and Mrs. Red was to serve three terms as the elected president of the National Auxiliary. Ten states were reported organized and eight states were in the process of organization at the San Francisco meeting.

The first official gavel of the Texas Auxiliary was presented to the National Auxiliary at the San Francisco meeting and has become the official gavel of the National Auxiliary. It is made of oleander wood from Galveston, Texas, and is supposed to "Whisper the Mother Spirit of Texas whenever it is used." I had the honor and responsibility of being custodian of this gavel in 1954-55, and believe me, I guarded it with my life! I might not have known where my toothbrush was or if I had a runnerless pair of hose to put on in the morning, but I always could lay my hand on the gavel, day or night.

In the light of today, when so many well thought out, safe, sane plans for organization are ours for the asking, it is hard for us to realize that *the pioneer,* working out the destiny of some new idea, must of necessity blaze her own trail. Her deeds are sign posts by which others may travel without hazard. Her reward lies in clearing the field for those who follow. Texas had no organized state to guide it, no National Mother to admonish it, but, with an empelling force it gave birth to itself and four years later created its own mother, the National Auxiliary. Mrs. W. A. Wood, Texas historian at the time said: "Should our Mother ever feel to chide us (Texas Auxiliary) for being a babe born out of due season, we could only remind her that we needed to experiment on ourselves in order to perfect and train a Mother Auxiliary to AMA."

As you may have suspected, medical auxiliaries are not independent organizations but an integral part of the AMA, the State Associations, and the County Societies. Auxiliary means—conferring help or aid; to assist or support; subsidiary or additional; serving to supplement.

In 1951 the American Medical Education Foundation Committee was created. It wholeheartedly supports medical schools through donations of money and educational methods.

State Auxiliaries are urged to make possible the attendance of their president and president-elect at the National Conference for State Presidents and Presidents-Elect and the annual convention by paying all or part of their expenses.

THE AUXILIARY:

Approves Voluntary Health Insurance plans which have been approved by the AMA.

Approves the Blood Bank Program.

Participates in Nurse Recruitment and Education and gives Nursing Scholarships.

Approves and aids Practical Nursing Education.

Approves and participates in Health Day Programs.

Approves of Health Fairs and Science Fairs and promotes them in the Community.

Approves Animal Experimentation.

Endorses the Bricker Amendment.

Endorses CARE Program (W.H.O. program).

Endorses the Highway Safety Program and all other phases of Safety work.

Endorses "A Family Doctor for Every Doctor's Family."

Endorses Radio Free Europe Committee and the Free Europe Press.

Approves Community Health Week.

Urges all auxiliary members to keep informed on current politics; to register and vote in all elections; to serve on Grand Juries; and when feasible to take their place actively in government.

Urges individual member participation in P.T.A.'s, Federated Clubs, League of Women Voters, American Legion Auxiliary, A.A.U.W., and others; and cooperation in local health projects and local health boards.

State and County Auxiliaries are urged to have active program chairmen who are familiar with state and local health problems and programs and the health programs of the various lay organizations. She shall work out a program on health to fulfill the needs and the aims of the auxiliary.

County Auxiliaries are continuously urged to organize study groups.

The study of American History in schools—first grade through college—is urged, in order that our youth may be aware of the fundamentals upon which our democracy is founded.

It is the duty of the auxiliaries to promote the circulation of *Today's Health* magazine.

As of June, 1956, there are 48 state auxiliaries; two territorial auxiliaries (Alaska and Hawaii); and the District of Columbia with a total membership of 74,348.

It is agreed that the center of a woman's activities is her home but it need not be the circumference of her activities. Every woman needs to be interested in community affairs. Outside her home, family, and church, a doctor's wife is a natural for leadership in community health.

We admit that it takes a very special kind of a "gal" to be a good doctor's wife. It takes good auxiliary members to make a good auxiliary. Therefore, a good auxiliary is you. Your participation in the auxiliary program and the health affairs of the community is the key to good public relations. Good public relations can not be delegated to a committee or mailed to you in a package from our Central Office in Chicago. Good public relations must come through you, our individual members.

A good auxiliary member is informed, respected and active in her community. A good auxiliary member does her fair share of the work in the auxiliary and in the community. A good auxiliary member must know and live the ethics of the profession along with her husband. Dedication of ourselves to auxiliary aims and the health of the community will be rewarded by confidence and trust of the people and the appreciation of the medical society to which we are auxiliary.

Letters to the Editor

(Continued from Page 125)

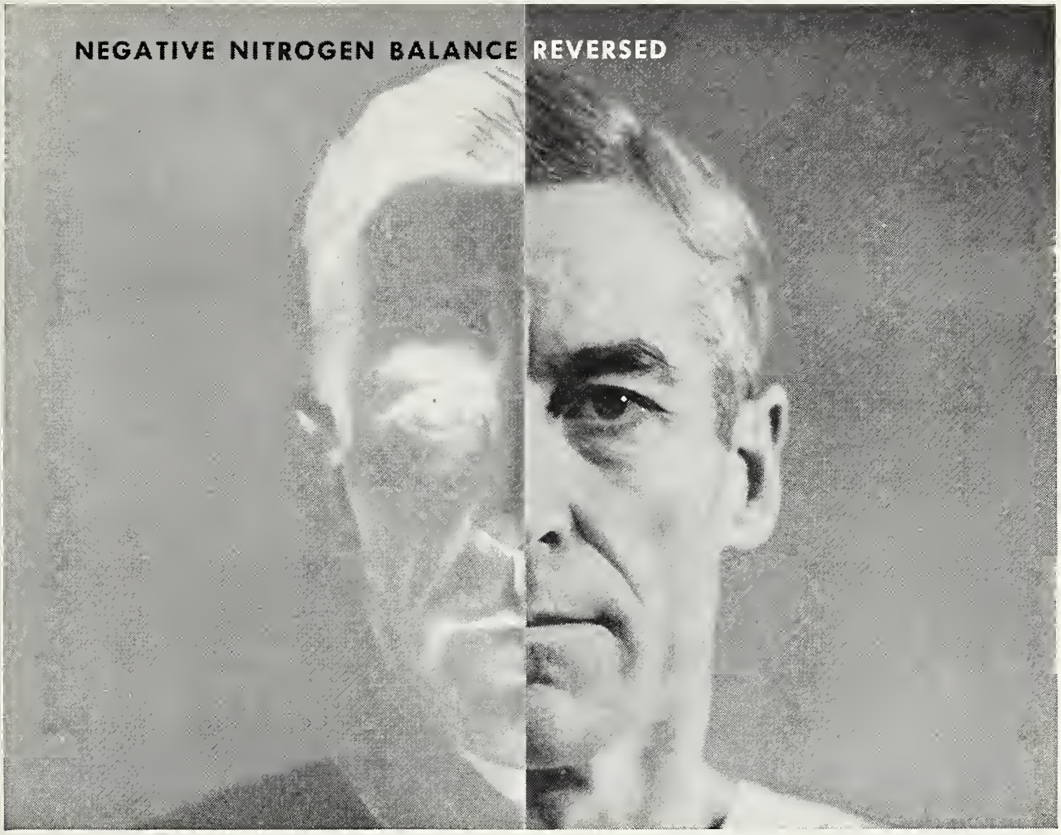
The specialist has his place, of course. It is impossible for the general practitioner to keep up with all the literature in every branch of medicine. He can't be the complete psychiatrist and surgeon, osteologist and obstetrician. But he is on the firing line of medicine, serving and being served by the men in the rear echelons. He sees the patient first, treats him and sends him on to the expert in some one aspect of medicine if necessary.

The family doctor, if he is worthy of his calling, comes when he is called, even in the middle of the night. It may be nothing worse than a case of green apple indigestion that has worried his patient's family, or it may be acute appendicitis. He may grumble about being called out of bed to prescribe bicarbonate of soda, but he keeps in mind that the next case may call for immediate surgery. The variety and challenge of his practice keep him alert.

The rewards are great, and properly so. The doctor is accorded more respect and prestige than any other man in the community with possible exception of the clergy. But he has to earn them with hard work and devotion.

You may wonder whether we have a certain doctor in mind. Of course we do. He is our family doctor. And you have your family doctor in mind as you read. Bless them both, and God grant them long and happy lives.

OASI is a system under which the active workers and their employers are contributing the taxes necessary to pay benefits to their fellow citizens on the benefit rolls. The active workers now covered under the system must look for their own old-age benefits, not in any large measure to the Trust Fund, which is only a moderate buffer fund to cover temporary excess of benefit payments over tax receipts, but mainly to the willingness of the next generation of active workers to pay the increased taxes out of which the retirement benefits will come.



Nilevar®

stimulates protein synthesis,
corrects negative nitrogen balance

Increased nitrogen loss, with resulting negative nitrogen balance, occurs in infection, trauma, major surgery, extensive burns, certain endocrine disorders and starvation and emaciation syndromes. The intrinsic control of protein metabolism is lost and a protein "catabolic state" occurs. A patient requiring more than ten days of bedrest usually has had sufficient metabolic insult[1] to precipitate such a "catabolic" phase.

Nilevar (brand of norethandrolone) has been used in patients with varied conditions including hyperthyroidism, poliomyelitis, aplastic anemia, glomerulonephritis, anorexia nervosa and postoperative protein depletion. The patients gained weight and felt better. It was concluded[2] that "the drug certainly caused a reversal of rather recalcitrant or progressive catabolic patterns of disease."

Nilevar is unique among anabolic steroids in that androgenic side action is minimal or absent.

The suggested adult dosage is three to five tablets (30 to 50 mg.) daily. For children 1.5 mg. per kilogram of weight is recommended.

G. D. Searle & Co., Chicago 80, Illinois. Research in the Service of Medicine.

---

[1] Axelrod, A. E.; Beaton, J. R.; Cannon, P. R., and others: Symposium on Protein Metabolism, New York, The National Vitamin Foundation, Incorporated, (March) 1954, p. 100.

[2] Proceedings of a Conference on the Clinical Use of Anabolic Agents, Chicago, Illinois, G. D. Searle & Co., April 9, 1956, pp. 32-35.

SEARLE

SPECIAL NOTICES

New York Sectional Meeting
American College of Surgeons
Hotels Belmont Plaza, Biltmore and Waldorf-Astoria
New York City—March 3-6, 1958

12th Annual Meeting of Fundamental Cancer Research
Houston, Texas
March 6-8, 1958

Ciba Foundation Symposium on Amino Acids and Peptides
London, England
March 18-20, 1958

Pulmonary Circulation Conference
Chicago, Illinois
March 20-22, 1958

Congress of International Anesthesia Research Society
New Orleans, Louisiana
March 24-27, 1958

AMERICAN TRUDEAU SOCIETY

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Postgraduate Course: "The Measurement Of Pulmonary Function In Health And Disease"

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March 24-28, 1958

A course aimed at physicians interested in diseases of the chest who wish to acquaint themselves with the methods used in the evaluation of pulmonary function will be presented for the eighth successive year at the Boston City Hospital, March 24 to 28, 1958. The methods used in the evaluation of pulmonary function and related cardiac function will be demonstrated.

Tuition $75.00

Applications and more detailed information may be obtained from the chairman of the course:

Edward J. Welch, M.D.
1101 Beacon Street
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American Psychosomatic Society
Cincinnati, Ohio
March 29-30, 1958

American Association of Anatomists
Buffalo, N. Y.
April 2-4, 1958

Vitamin B_{12} Symposium
New York, New York
April 11, 1958

Pan American Congress of History of Medicine
Rio de Janiero, Brazil
April 12-20, 1958

American Society for Artificial Internal Organs
Philadelphia, Pa.
April 13-14, 1958

American Association of Immunologists
Philadelphia, Pa.
April 14-18, 1958

Peruvian Academy of Surgery
Lima, Peru
April 14-18, 1958

International Congress of Legal and Social Medicine
Madrid, Spain
April 16-19, 1958

American Industrial Hygiene Association
Atlantic City, N. J.
April 21-28, 1958

International Congress of Internal Medicine
Sheraton Hotel, Philadelphia, Pa.
April 24-26, 1958

Third World Congress on Fertility and Sterility
Amsterdam, The Netherlands
June 6-13, 1958

SECOND WORLD CONGRESS OF THE INTERNATIONAL FEDERATION OF GYNECOLOGY AND OBSTETRICS

Montreal, Canada

June 22-28, 1958

All correspondence should be directed to Dr. Gerin-Lajoie, 1414 Drummond Street, Montreal 25, Canada.

American College of Obstetrics and Gynecology
District I Meeting
Portsmouth, N. H.—September 19 & 20, 1958

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AROUND THE STATE

Connecticut Regional Blood Program

The percentage of blood received by types in the Connecticut Blood Center has been reviewed for the calendar year, 1957. Approximately 78,000 typings were done. These figures resemble very closely a previous study of 76,000 typings done during the fiscal year of July 1, 1952 to June 30, 1953.

TYPE	1952-53	1957
A pos	33.9%	33.6%
A neg	6.4	6.3
B pos	10.0	10.0
B neg	1.7	1.9
AB pos	3.6	3.9
AB neg	.7	.7
O pos	37.0	36.9
O neg	6.7	6.7

DONORS	DEC. 1957	7/1/57 THRU 12/31/57
Donors accepted	7,400	43,300
Donors rejected	584	4,062
Donors registered	7,984	47,362
BLOOD ISSUED TO HOSPITALS		
To Connecticut Hospitals from Center	6,570	37,932
Blood collected by hospitals	668	3,661
To fractionation stock pile	306	1,206
To N.I.H.	6	6
To out of state hospitals	51	460
	7,601	43,265
PROCESSING AT CENTER		
Processed into fresh frozen plasma	63	474
Processed into packed cells	3	11
Processed into liquid plasma	702	3,515
	768	4,000
Discarded—unfit and broken	31	200
Grand Total—distribution of blood	8,400	47,465
Blood returned to center for processing into plasma and fractions	722	3,571
BLOOD DERIVATIVES ISSUED TO HOSPITALS		
Irradiated plasma (300 cc)	32	275
Fresh frozen plasma (125 cc)	95	848
Serum albumin (100 cc)	115	603
Immune serum globulin (2 cc)	0	60
Packed red cells	3	11
Fibrinogen	0	0

Connecticut Blood Program ARC

The Connecticut Blood Program, as part of the National Red Cross system, will accept donations of blood for transfer out of state to other Red Cross Centers or hospitals contingent upon hospital acceptance of Red Cross service, subject to the following provisions:

1. Action leading to the establishment of a recipient's eligibility for such transfer shall be his own responsibility or that of his immediate family. The application must be made within 90 days of the first transfusion. The local Red Cross Chapter of the American Red Cross will act as agent.
2. Eligibility for transfer is based upon prior donations of blood to the Connecticut Blood Program. For each pint given, one credit is allowed for transfer for the use of the donor or his immediate family, valid for one year from the time of donation. The immediate family is husband and wife, children, grandchildren, parents, and grandparents, sisters and brothers.
3. If there is no credit for prior donations available to the immediate family, the Connecticut Blood Program will, nevertheless, accept donations for subsequent credit to an out-of-state recipient subject to the following conditions:
   - A. Replacement on a one pint for one pint basis.
   - B. Credit for such donations must be waived by each donor until his next donation.
   - C. Blood will not be transferred in advance of the establishment of credit.
4. The Connecticut Blood Program does not undertake to furnish any blood products or to supply freshly drawn blood outside the boundaries of this state.
5. The Reciprocity Committee of the Regional Blood Committee will review all cases not falling within the above provisions.

Proctologists Elect

At the 20th Anniversary Meeting of the New England Proctologic Society held at Amherst, Massachusetts last October, all the elected officers except the secretary-treasurer hailed from Connecticut. They are Frederick S. Ellison of Hartford, president; Simon B. Kleiner of New Haven, vice president; Albert R. Keith of Hartford, honorary president.

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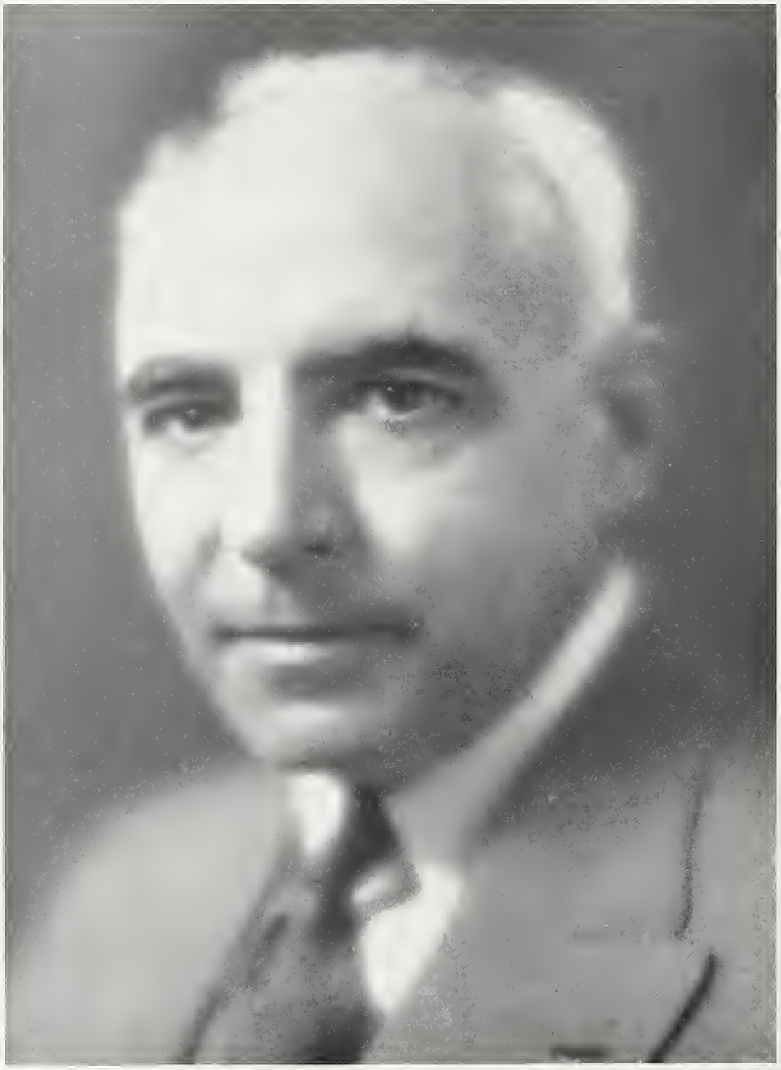
In my capacity as vice chairman of the Connecticut Governor's Committee on Employment of the Handicapped, I have the privilege of presenting a citation authorized by the President of the United States and the Governor of Connecticut to Dr. Daniel P. Griffin. This high honor has been conferred upon Dr. Griffin by the President's Committee on the Employment of the Physically Handicapped upon recommendation of the Connecticut Governor's Committee on Employment of the Handicapped and the Connecticut State Medical Society.

Dr. Griffin was born in Holyoke, Massachusetts, in 1885. When Dr. Griffin was 14 years old his father died causing Dr. Griffin to leave school. He worked at various jobs for the next ten years.

In 1909, when he was 24 years old, Dr. Griffin passed an entrance examination for high school and was graduated from high school in the following June. Four years later, in 1914, he was graduated from the Jefferson Medical College in Philadelphia.



Daniel P. Griffin, M.D.

After an internship in the Bridgeport Hospital, he was engaged in the general practice of medicine from 1915 to 1920. Then, at the age of 35, he began postgraduate work in the field of neuropsychiatry.

In 1924 he was one of the founders of the Bridgeport Mental Hygiene Society. He served as neuro-

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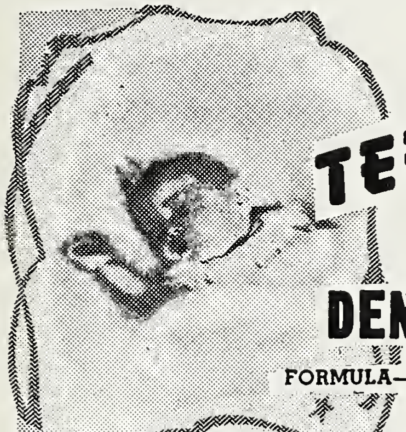

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psychiatrist in the New Haven Dispensary and in the Welfare Clinic in Bridgeport. In 1926 he was appointed Chief Neuropsychiatrist at the Bridgeport Hospital, a position he held until he reached the retirement age of 65 in 1950 except for one year spent as Medical Director of Hall-Brooke Sanitarium, Greens Farms, Connecticut. For fifteen years, from 1926 to 1941, he served as psychiatrist to the Bridgeport (later the Fairfield County) Juvenile Court.

In 1927 he was elected to Fellowship in the American College of Physicians. A member since 1926 in the American Psychiatric Association, he was elected to Fellowship in that Association in 1930. In 1936 he was certified in both branches by the American Board of Psychiatry and Neurology. Among other affiliations he has served as Consulting Neuropsychiatrist to the Stamford Hospital, to St. Joseph's Hospital in Stamford, the Vanderbilt Clinic in New York City, and the Mental Hygiene Clinic of the Veterans Administration in Bridgeport, and was for three years Medical Director of Stamford Hall.

He is a past President of the Bridgeport Medical Association, a past President of the Fairfield County Medical Association, and a past Vice President of the Connecticut State Medical Society. He is a past President of the Connecticut Society for Psychiatry and Neurology and a past President of the Connecticut Occupational Therapy Association.

He is the author of numerous publications in the field of neuropsychiatry and rehabilitation.

Throughout his professional life Dr. Griffin has championed the cause of rehabilitation and, in the documented opinion of colleagues who are well able to judge, he has been known to get people back to work who were thought almost impossible to rehabilitate.

Through Dr. Griffin's efforts several hundred clients of the Bureau of Vocational Rehabilitation have been rehabilitated and are happily employed.

Dr. Griffin has been described by his colleagues as a very conscientious and meticulous worker for whom responsibility for the management of a patient is not an assignment but a matter of genuine devotion to the care and welfare of the patient.

Mr. Julian Brylawski of the President's Committee on the Employment of the Physically Handicapped and Mr. John L. Connors, Chairman of the Connecticut Governor's Committee, have asked me to express to you, Dr. Griffin, their congratulations on the excellent work you have been doing in the rehabilitation of persons suffering types of handicaps for which rehabilitation is difficult and requires the full devotion of a skilled physician.

Dr. Griffin, it is a privilege and a real pleasure to present to you this well deserved citation which reads as follows:

The President's Committee on
Employment of the Physically Handicapped
CITATION FOR MERITORIOUS SERVICE
Conferred upon
Daniel P. Griffin, M. D.
in appreciation for exceptional contributions in advancing the employment
of the physically handicapped.

This citation Sir, is signed for the President of the Unted States by General Melvin J. Maas and for the Governor of the State of Connecticut by Mr. John L. Connors.

John N. Gallivan, M.D., Vice-Chairman
Connecticut Governor's Committee on
Employment of the Handicapped

December 11, 1957

Fairfield County

George K. Pratt of Westport died at his home on December 11, 1957 at the age of 66.

Word has been received here of the death on December 28 of John Lo Cricchio, a former member of the Fairfield County Medical Association, in Youngstown, Ohio. Dr. LoCricchio, former pathologist at St. Vincent's Hospital, Bridgeport, had been serving as pathologist at St. Elizabeth's Hospital in the Ohio city.

Appointed to the Nominating Committee of the Fairfield County Medical Association to prepare a slate for the annual meeting in April are the following: Frank H. D'Andrea, Stamford, chairman; C. Stanley Knapp, Greenwich; Louis Rogol, Danbury; J. Donald Corridon, South Norwalk; Michael A. Dean, Bridgeport. The appointments were made by President R. Harold Lockhart last month. The annual meeting of the Association will be held Tuesday, April 8 at the Stratfield Hotel, Bridgeport.

Indoctrination meetings for new members, for the past two years conducted at the time of ad-

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Robert Isenman, M.D.
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mission of new members in April and October, will henceforth be held once per year, the Public Relations Committee has announced. It is likely that the session for new members entered this year will be held in October.

Hartford County

Matthew H. Griswold, chief of Cancer Division, State Department of Health, was awarded a distinguished service medal by the American Public Health Cancer Association in Cleveland recently.

Morris J. Seide of Hartford is the author of "Heart Failure Due to Extreme Obesity: Report of a Case with Autopsy Findings" published in *The New England Journal of Medicine,* December 19, 1957.

St. Francis Hospital, Hartford soon will start construction on a four story wing which will replace the original building erected in 1897. The cost of the new wing will be over $3 million aided by a grant of $250,000. from the Ford Foundation. The ground floor will be used by the admitting office, the business office, the medical records department, and the coffee and gift shop. The second and third floors will be used for patients with a total of 97 beds, while on the fourth floor will be expanded clinical laboratory facilities, a medical research area, the Department of Medical Education, and the medical library.

Henry M. Young, a surgeon in New Britain, died at the New England Deaconess Hospital in Boston of cancer on December 31 at the age of 39 years.

Harry J. Onderdonk, a practitioner in East Hartford for 55 years, died at his home in Old Saybrook on January 8 at the age of 85 years. Dr. Onderdonk was a true scholar, familiar with both Latin and Greek writings in the original.

The new officers of the Hartford Medical Society are: Lewis P. James, president; Stanley B. Weld, president-elect; James S. Missett, secretary; Samuel H. Cohn, assistant secretary; and Ernest Caulfield, librarian.

Slightly better than 50 per cent of all funds raised in Connecticut through AMEF for the nation's medical schools were contributed by HCMA members, a December 3rd report of the Connecticut State Medical Society indicated. However, only 31 per cent of the entire county membership made this contribution. Total figures raised were $10,803 for Connecticut. HCMA contributed $5,334. This figure was 55 per cent of our quota of $9770 for the current year. Local committee chairman is Charles Jacobson.

Speaking in New York next year to the Academy of Orthopedic Surgery will be Philip Radding. His subject will be "Pathology of Connective Tissue Injury Following Poliomyelitis."

Appointed medical director of the Hartford Plants of the Royal McBee Corporation is Roger G. Conant. A graduate of Trinity College and Georgetown Medical School, Dr. Conant was also awarded a fellowship in industrial medicine at Yale University. Formerly associated with the New Departure Division of General Motors and Travelers Insurance Company, he will now direct a staff of ten responsible for Royal McBee's 6000 Hartford employees.

Discussing "Today's Teen-Ager—Individualist or Conformist" was George A. Tulin. He spoke before The West Hartford United Synagogue Youth.

Appointed health officer of Southington is George M. Gura. He succeeds Thomas W. Dudac.

Attending the session of the American Academy of Psychosomatic Medicine recently at Chicago was Donald J. McCrann.

Speakers at a Hartford Hospital forum recently were: Jessie Parkinson, Francis G. Reilly, and Edward Scull.

Participating in the Connecticut State Medical Society's clinical meeting in Hartford were: William J. Lahey, Louis F. Middlebrook, John C. Leonard, Stevens J. Martin, Benjamin V. White, Howard Levine of New Britain.

Representing New Britain's drive to help mentally retarded children is Roswell Johnson. He has been appointed honorary chairman. Dr. Johnson is also medical advisor for the Day Care Center, sponsored by the Central Connecticut Association for Retarded Children.

Representing the Connecticut State Medical Society at the AMA's Fourth Annual Conference on Mental Health in Chicago last month was John Donnelly, medical director of the Institute of Living.

A new infertility clinic at Hartford Hospital opened last month under the direction of W. Leslie Smith.

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Open for enrollment to HCMA members is the new group retirement plan. Operating on the principle of group buying, the retirement fund makes possible the purchase of an annuity, and investments in growth stock at a great economy. According to the representatives of the National Life Insurance Company, which is underwriting the annuity, this is the first time this type of plan has been offered anywhere in the United States.

THE PLAN eliminates the necessity of constant surveillance of stock purchased by the individual. This is done by a method commonly called in the stock market, "Dollar averaging." This system allows, by constant purchasing in the face of falling or rising markets, an averaging out of purchases over a long term in favor of the purchaser since the market generally has had an upward rise. Furthermore, greater safety is provided since the individual pools his funds along with others to provide a bigger spread of investments over all the possible sources of commerce and finance. Growth emphasis is the main feature of the investment portfolio instead of income—to keep your present tax liability as low as possible. The Hartford National Bank and Trust Company is managing the investment portfolio.

Dr. John R. Paul Named to Polio Hall of Fame

John R. Paul, professor of preventive medicine at Yale University School of Medicine, was one of seventeen persons honored on January 2 for their work in connection with the prevention of poliomyelitis. A bronze bust of each was unveiled at the Warm Springs Hall of Fame on the 20th anniversary of the founding of the National Foundation for Infantile Paralysis. Dr. Paul was the first chairman of the Committee on Poliomyelitis of the World Health Organization. He has worked at Yale under research grants from the Foundation since 1938.

Two other scientists known to many in Connecticut were similarly honored: Joseph L. Melnick, former associate professor of microbiology at Yale and now at the National Institutes of Health in Bethesda, Maryland, and John F. Enders, a native of Connecticut and winner of the Noble Prize for Medicine in 1954. Among the other scientists honored were Thomas M. Rivers, Albert B. Sabin, Thomas Francis, Jr. and Jonas E. Salk, names familiar to all physicians.

New Haven County

Yale University and Grace-New Haven Community Hospital are erecting a new building to house the Hunter Radiation Therapy Center and also to provide space for an extension of the existing Laboratory for Medicine and Pediatrics.

Joseph D. Russo, attending surgeon at St. Raphael's Hospital since 1919, died on Christmas Day at the age of 64 years.

Herbert Thoms of Hamden is the author of "Preparation for Parenthood in the Childbirth Program" published in *Obstetrics and Gynecology,* October, 1957.

George H. Dickanson has been chosen chief of the medical staff at Memorial Hospital, Meriden. The Board of Trustees also appointed Joseph Zimmerman, vice president; J. Curtis Giddings, chief of medicine, and Harry F. Pennington, chief of obstetrics and gynecology.

The appointments to the staff of the Meriden Hospital, Meriden include Michael J. Conroy, chairman of the medical board; William C. Carey, secretary; David J. Cohen, director of medicine; Francis Giuffrida, director of surgery; Hoyt C. Taylor, director of obstetrics and gynecology; and two members at large, Richard Breck and Donald H. Badner.

Middlesex County

Frank Kivlahan, who has just completed an internship at the Middlesex Memorial Hospital, has joined Charles W. Chace in general practice in Middletown.

New London County

The January meeting of the New London County Medical Association was held on the 2nd at the Mohican Hotel with E. Roland Hill, president, in the chair. After a delicious dinner the Association heard Samuel B. Proger of Tufts Uni-

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versity School of Medicine speak on "Arteriosclerosis and Diet." On December 10 the medical staff of the W. W. Backus Hospital held its annual dinner meeting at the Norwich Inn where annual reports and election of officers took place. John E. Martin was elected president, Nicholas T. Phillips, vice president, and Harvey N. Mandell, secretary.

Windham County

Sidney Vernon of Willimantic is the author of "Umbilical Transplantation Upward and Abdominal Contouring in Lepectomy" published in *American Journal of Surgery,* September, 1957; "Preventing Hemorrhoid Recurrence" published in *American Journal of Proctology,* April, 1957; and "Calcific Periarthritis of the Shoulder: A Concept of Its Pathogenesis" which appeared in *Journal of the International College of Surgeons,* July, 1957.

Broad-Coverage Insurance That Works

According to George Bugbee, president of Health Information Foundation, there is ample evidence that the American public is interested in having voluntary health insurance cover a broader range of medical expenses than does prevalent insurance, which is designed to cover hospital expenses and physicians' fees for care in the hospital.

Many sizable medical expenses occur outside the hospital. For example, about one-fifth of the consumer's overall medical dollar goes for care provided by doctors in home and office. It is feasible for insurance to cover such expenses, since they are not evenly distributed among families and, in fact, represent a significant part of the high medical costs periodically experienced by some families.

Physicians, hospital administrators, and the voluntary health insurance agencies are all working toward covering a greater range of personal medical costs. But most existing plans for comprehensive health insurance in this country alter the traditional framework of medical practice, and thus have not gained wide acceptance by physicians or the public.

In Canada, a number of province-wide, physician-sponsored prepayment plans cover comprehensive physicians' services. The Windsor Medical Service, for example, has for 20 years provided insurance against physicians' fees for home, office, and hospital care; and this program, operated by the local medical profession, has enrolled most of the population *through voluntary decision by the public.*

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Asks Re-Examination Of Vets' Benefits

The A.M.A. has been informed that the board of directors of the Chamber of Commerce of the United States recently adopted a statement of policy about the problem of the increased number of veterans utilizing federal hospital facilities without having any service-connected disability. The number of such hospital patients (nonservice-connected) far exceeds the number of those who are being treated for war-caused disabilities. The prospective cost of the program is enormous.

The board of directors of the U. S. Chamber is urging the termination of housing, educational, and hospital benefits for veterans with nonservice connected disabilities with a view to reducing costs to veteran and nonveteran taxpayers, and placing veterans on the same basis as other citizens.

NEW BOOKS IN REVIEW

PSYCHOPATHIC PERSONALITIES. By Harold Palmer, M.D. Philosophical Library, New York. 1957. 175 pp. $4.75.

Reviewed by Francis J. Braceland

This is an interesting little volume by an English psychiatrist with wide experience. He distills from his own and from the clinical experiences of others a valid set of concepts. He notes that his original point of origin was inspired by the writings of William James, though his main formulations "have been critically influenced by the writings of Sigmund Freud, with whose concepts, doubtless albeit unconsciously, I have become indoctrinated."

The author decides not to use the term "sociopath" to describe the individuals in question for various reasons, so he returns to the familiar term "psychopath," and he recognizes them as follows: anxiety psychopaths (the worriers); hysteroid psychopaths (the Prima Donnas); depressive psychopaths (the morose and irascible); obsessional psychopaths (the persnickety folks); maniacal psychopaths (the bounders and planners), etc., etc., etc., including "the person whom you and I potentially dislike for the moment, be he schoolmaster, judge, employer or colleague, especially him or her of whom you are jealous and especially if he be your opponent in the political field. Lastly there is a wide range of socially inadequate people."

Though it is obvious from the above that the author's touch is light, his doctrine is sound. He is experienced, objective, comprehensive, well informed, and there is a temptation to overload this review with quotations, for the author is also felicitous of phrase.

After a discussion of psychopaths, he considers in turn the schizophrenias, the depressive states, the obsessions, hysteria, the epilepsies, the tension syndromes, the paranoid states, and mania. Necessarily in a small volume of this type none of the syndromes is covered extensively. The book is aimed at

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"achieving a mode of presentation of psychiatry, acceptable to workers in other disciplines, including those concerned with the management of human beings."

The author enjoyed mostly composing the chapters on Psychopaths and Hysterics, not, he says, he hopes because of autobiographical insight, but because he sees in them the origin of the greatest threat to the free institution of England and the United States. In the light of much that has been happening recently, including the miserable showing of some of the American PWs in the Korean campaign, his ideas become more pointed.

This is not a text book, nor is it an exhaustive treatise of any kind; it is simply a readable little book on Psychopathia and all of its pomp, and hence it is worthwhile.

CHRONIC ILLNESS IN A LARGE CITY. Volume IV of Chronic Illness in the United States. By The Commission on Chronic Illness. Cambridge, Massachusetts. The Commonwealth Fund. 1957. 620 pp. $8.00.

Reviewed by James R. Miller

A representative sample of urban population has been studied in Baltimore to determine more accurately than has been possible the extent and significance of chronic illness and what might be expected to result from adequate efforts to meet demonstrated needs, or, in other words, what has rehabilitation to offer.

There is a review of previous surveys, a carefully conducted screening test study, and a searching history and physical examination with all the assistance to be had from public health nurse, medical social worker, psychiatrist, and every facility of a specially staffed organization in the outpatient department of the Johns Hopkins Hospital.

Volume III, Chronic Illness in a Rural Community, is still to appear, as the list shows of the publications of the Commission on Chronic Illness which dissolved as planned in June, 1956 after seven years of study.

Volume IV contains not only information on the extent of disabilities found, but a discussion of methods used which will be useful for any further studies of this nature.

As usual the editorial and printing is excellent and the work is well indexed. These four volumes should be on the shelves of every public health and welfare official, and of every institution administrator who deals with chronic illness. It is interesting to note the extent to which persons who were offered his examination at no cost to themselves and at minimal inconvenience, refused to accept the opportunity. A discussion of this phenomenon is of interest to every student of human behaviour.

STEPS FOR TODAY TOWARD BETTER MENTAL HEALTH. Edited by Josephine Nelson and Elizabeth M. Dach. New York, National Health Council, 1957. 118 pp. $1.50.

Reviewed by John Donnelly

This report covers the 1957 National Health Forum sponsored by the National Health Council. The National Health Council is composed of approximately sixty organizations interested in various aspects of health. This year was devoted to the subject of mental health and the Forum met in Cincinnati. Presided over by Dr. Francis J. Braceland, the Forum considered practically every approach to the examination of mental health of the community. This report digests the presentations and the discussions, includes an analysis of the causes of mental illness, and discusses the ways in which preventive measures may be taken to improve the mental health of the nation.

There is a vast amount of material in this report, many different viewpoints are expressed, but most people concerned in the health movement will find useful information in this booklet.

PREVENTION OF CHRONIC ILLNESS. Chronic Illness in the United States—Volume I. Commission on Chronic Illness. Published for The Commonwealth Fund by Harvard University Press, Cambridge, Massachusetts. 1957. 338 pp. $6.00.

Reviewed by Elizabeth Cornfield

This volume is the first of a series of four on chronic illness prepared by the Commission on Chronic Illness, which studied the problem of chronic illness in the United States from 1949 to 1956.

According to the Commission on Chronic Illness, prevention of chronic disease means averting the development of a pathological state and includes all the measures which halt the progression of disease to disability and death.

Part I of the volume outlines the basic elements of prevention and spells out twenty-one specific conclusions and recommendations for effective prevention. The promotion of positive health is urged for all levels of society, with emphasis upon the maintenance of optimum health through proper nutrition, adequate housing, mental and physical hygiene, recreation and personal economic security. Primary prevention of disease may be effected by the application of known measures and the search for new methods to prevent the occurrence of specific diseases. Secondary prevention involves halting the progression of disease and the prevention of sequelae and complications by prompt treatment of known disease and the detection fo unsuspected disease in early stages through periodic health examinations and screening tests. Of key importance in fostering prevention of chronic illness is an increase in the numbers of all types of personnel in the health fields and reorientation of educational programs of the professions and the lay public for prevention of disease and the promotion of health. The community's contribution to prevention encompasses the provision and coordination of facilities and services for prevention, financial support for research, and educational programs to motivate the individual to take care of his health.

Part II presents summaries of the major chronic diseases, discussing briefly the etiology, clinical and subclinical manifestations, the preventive aspects and the areas in which research is needed for more effective prevention. Included also are reviews of Industry, Dental Health, Emotions, Heredity and Malnutrition and Obesity as important factors in the occurrence of chronic disease.

A brief history of the Commission on Chronic Illness, its organization and publications are included in the appendices.

The problem of chronic disease is reduced to its common denominators and the opportunities and responsibilities for prevention outlined. Presented briefly and lucidly, "Prevention of Chronic Illness" is readable, informative and up-to-date, and should prove to be an exceedingly valuable reference for educators, private and public health personnel, welfare workers and the general public.

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Statement On Financing Of The Hospital Needs Of The Retired Aged

Approved by the A.M.A. Board of Trustees
November 7, 1957

Studies by special committees of the American Hospital Association during the past three years have confirmed that retired aged persons face a serious problem in financing their hospital care. This burden contributes to the indigency and pauperization of many such persons.

Two years ago, the Association concluded after careful study that federal funds would be required if a satisfactory solution were to be found. As a result, in September, 1955 the House of Delegates adopted a policy of federal and state matching grants to underwrite, from general tax funds, a portion of the premium for voluntary health insurance for the aged.

Because of lack of support for this approach and because the problem was continuously growing in dimensions, the Association appointed a new committee early in 1957 to study the entire problem and all possible solutions.

This committee concluded that, although federal participation was still necessary, the federal-state subsidy approach was no longer a satisfactory one for the following reasons:

a. The improbability of obtaining enough federal and state funds to meet the problem in any significant degree due to present budgetary restrictions of the federal government and opposition to the establishment of any new federal grant problems.

b. The probability that this approach would necessitate the imposition of a means test, unacceptable to many.

c. The real possibility that the program would lead to interference with hospital operations.

The American Hospital Association believes that the Forand Bill (H.R. 9467) is not a suitable solution to the problem of financing the hospital needs of the retired aged. Among its major objections to the Forand Bill are the following:

a. Eligibility of aged beneficiaries is based on attainment of prescribed ages without regard to their employment status and thus invites a pro-

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gressive reduction of these age levels with the ultimate possibility of a total program of government-financed hospital care.

b. The bill makes possible the provision of care for other than health reasons.

c. The bill provides inadequate safeguards against governmental interference with the actual operation of hospitals. Such interference would most likely hamper evolution of patterns of hospital service to the detriment of patient care.

In summary:

1. The American Hospital Association is convinced that retired aged persons face a pressing problem in financing their hospital care.

2. It believes that federal legislation will be necessary to solve the problem satisfactorily. It has, however, serious misgivings with respect to the use of compulsory health insurance for financing hospital care even for the retired aged.

3. It believes that all possible solutions must be vigorously explored including methods by which the dangers inherent in the Social Security approach can be avoided.

4. It believes that the use of Social Security to provide the mechanism to assist in the solution of the problem of financing the hospital needs of the retired aged may be necessary ultimately. However, it believes that every realistic effort should first be made to meet these needs promptly through other mechanisms utilizing existing systems of voluntary prepayment.

American medicine would do well to study the plight of physicians in Britain and France before accepting financial arrangements that would make them sitting ducks for capture by Government.

* * * *

"A dangerous thing about Social Security in the United States," said Ray D. Murphy, president of Equitable Society, "is that the American people have not yet come to realize that more can be given only by taking more. The nation simply does not get something for nothing in Social Security.

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The
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ESTIMATION OF OPERATIVE RISK—1957: MEDICAL ASPECTS

CLARENCE E. DE LA CHAPELLE, M.D., *New York, N. Y.*

The Author. *Professor of Medicine, University Postgraduate Medical School; Visiting Physician, Bellevue Hospital, N. Y.*

SUMMARY

With the extension of life expectancy has come an increasing number of chronically ill people who acquire superimposed diseases which necessitate surgical intervention. Estimation of operative risk in these elderly patients is growing increasingly difficult. A careful and detailed history supplemented by a thorough physical examination is of first importance. Electrocardiography and radiography are sometimes helpful, the former particularly in cases of heart block.

The place of the electrocardiogram in estimating surgical risk is discussed, also the use of quinidine, Pronestyl and digitalis in the preoperative treatment. The diabetic requires a more thorough program of preparation for surgical intervention because of the necessity of maintaining electrolyte balance and because of the surgical complications which may arise. Patients with chronic renal disease not only must have the renal function determined but also the status of heart and circulation.

DURING the past 20 years or more the estimation of operative risk in patients coming to surgery has become increasingly difficult. This is mainly due to the increasing age of our population and consequently to the increased incidence of heart diseases, arterial hypertension, diabetes mellitus, renal diseases, chronic pulmonary disorders, and other chronic illnesses. These chronically ill people acquire superimposed diseases such as neoplasms, intestinal obstructions, strangulated herniae, prostatic obstructions, and other ailments which often require surgery. The greatest care is required in evaluating these older patients, especially those with a chronic disease, as to surgical risk. Judging by the experience of my colleagues at Bellevue Hospital[1] and by reference to the literature, patients with cardiovascular diseases still constitute the major problem in estimating operative risk. In the past 10 years or so this has been accentuated by the large number of patients being submitted to surgical correction of structural heart abnormalities, including the acquired as well as the congenital lesions. These latter patients should be considered in a special category of operative risk because of their altered hemodynamics and therefore will not be discussed in this presentation.

HISTORY OF PRIMARY IMPORTANCE

In estimating operative risk I would consider a careful and detailed history of paramount importance even in this year of 1957 when so many refinements in methods of evaluating patients are available. Since, in the presence of many chronic illnesses such as diabetes, hypertension and pulmonary disorders, operative risk is influenced by the status of the cardiovascular system, it is of considerable importance to ascertain whether or not heart disease is present. This can be determined in most instances by a careful history, supplemented by a thorough physical examination. In some instances other procedures, including electrocardiography and radiography, will be needed before a definitive diagnosis can be made. In all instances the history will be of prime value in determining not only the etiological

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Presented at the 165th Annual Meeting, Connecticut State Medical Society, East Hartford, May 2, 1957 as part of a panel on Estimation of Operative Risk.

type of heart disease but also in estimating the functional capacity of the patient's heart.

The functional capacity of the heart is best expressed in terms of the functional classification recommended by the New York Heart Association, approved by the American Heart Association, and used by many physicians in their daily practice or in their hospital assignments. It is an attempt to denote the ability of the patient with heart disease to respond to his daily activities.

Some 30 years ago Marvin[2] of New Haven stated that if a patient with heart disease has been leading a life involving moderate activity and has been without symptoms, his heart may be regarded as the equivalent of a normal one, and therefore, it may be assumed that it will behave properly during anesthesia and operation. By and large this aphorism holds true in most instances even in 1957. However, as mentioned by Marvin,[2] and more recently shown by Morrison,[3] there are a few exceptions. These include such cardiac abnormalities as aortic stenosis of any etiological type, aortic insufficiency of syphilitic origin, and complete heart block as a manifestation of any type of heart disease. All three of these conditions may precipitate sudden death regardless of the functional capacity of the hearts. As shown by Morrison,[3] the one etiologic type of heart disease in which the functional classification is not as valuable in evaluating operative risk as in the other types is that form which has as its main anatomical lesion coronary atherosclerosis. It is in this form of heart disease that the risk of surgery is considerably greater and, according to Morrison,[3] seems to be centered in the etiologic diagnosis.

FUNCTIONAL CAPACITY

Class I	Patients with cardiac disease but without resulting limitation of physical activity. Ordinary physical activity does not cause undue fatigue, palpitation, dyspnea or anginal pain.
Class II	Patients with cardiac disease resulting in slight limitation of physical activity. They are comfortable at rest. Ordinary physical activity results in fatigue, palpitation, dyspnea or anginal pain.
Class III	Patients with cardiac disease resulting in marked limitation of physical activity. They are comfortable at rest. Less than ordinary activity causes fatigue, palpitation, dyspnea or anginal pain.
Class IV	Patients with cardiac disease resulting in inability to carry on any physical activity without discomfort. Symptoms of cardiac insufficiency or of the anginal syndrome are present even at rest. If any physical activity is undertaken discomfort is increased.

VALUE OF ELECTROCARDIOGRAM

In most instances the above mentioned exceptions can be recognized on physical examination although electrocardiographic evidence is sometimes required, especially in the case of heart block. It might be well at this point to mention the place of the electrocardiogram in estimating surgical risk. In general an abnormal electrocardiogram does not indicate increased operative risk. It has been shown, for instance, that the presence of bundle-branch block *per se* does not constitute a major contraindication to surgery, nor does it of itself increase surgical mortality or lead to more frequent postoperative complications.[4] The etiologic diagnosis and the functional classification of the patient are far more important in determining mortality and morbidity in such patients than the mere presence of bundle-branch block. Patients with this mechanism as a manifestation of rheumatic heart disease are better surgical risks than those in whom it is a manifestation of arteriosclerotic or hypertensive heart disease, and those patients in Class III or IV of the functional classification may be expected to have a greater mortality than those in Class I or II.

This also holds true for other electrocardiographic abnormalities, including those which demonstrate the various arrhythmias. Atrial fibrillation *per se* ordinarily does not increase morbidity or mortality in the presence of surgery if heart failure is not present and if the ventricular rate is under digitalis control. The electrocardiographic changes of serious significance, however, are those which reveal evidences of recent myocardial infarction and even though the patient may be symptom-free. As a rule, surgical intervention should be avoided in any patient for at least three months after an attack of acute myocardial infarction unless the urgency of the surgical condition will not permit postponement.

DRUG THERAPY

Any patient with a history of paroxysmal atrial fibrillation, regardless of whether organic heart disease is present or not, probably is a better risk if he is placed on a prophylactic schedule of quinidine or Pronestyl preoperatively. Those whose paroxysmal arrhythmia is a manifestation of altered thyroid function may also be included. All patients known to have atrial fibrillation or flutter should be digitalized prior to operation regardless of the ventricular rate or the absence of signs or symptoms of heart failure, and regardless of the etiologic type of their heart disease and the level of their functional classification. Here I would include the patients with thyroid dysfunction, even though evidences of structural heart disease may be wanting. Needless to say the number of such patients coming to surgery in the year 1957 is distinctly less because the antithyroid agents, and radioactive iodine, are being used more and more.

Any patient known to have had a bout of congestive heart failure or who ever experienced paroxysmal nocturnal dyspnea should be digitalized before operation, even though examination reveals no detectable evidence of myocardial insufficiency. Such patients become much better surgical risks since they are less apt to go into failure postoperatively or develop other complications during the postoperative period. On the other hand there is nothing to be gained in the preoperative use of digitalis in individuals with hypertension in the absence of a history or signs of an impaired myocardial reserve or a major arrhythmia. In general this holds true for all patients being prepared for operation including those in advanced age periods. Patients with the anginal syndrome as the main presenting symptom of coronary insufficiency are *not* made better risks by preoperative digitalization unless they manifest signs and symptoms of myocardial failure.

THE DIABETIC

By and large in the year 1957 the operative risk of patients with diabetes mellitus is determined not only by the status of their diabetes but especially by the state of their circulation which includes the coronary as well as the peripheral vessels. Needless to say their salt and water balance is important as well as their dietary and insulin regulation with particular emphasis on freedom from acidosis.

The use of insulin has practically eliminated the surgical diabetic patient's main handicap, namely, diabetes itself.[5] In addition other factors, including better preparation for surgery, parenteral feeding, and especially the use of the antibiotics have improved the surgical risk of all diabetics, including the elderly ones. Among the factors traditionally adding to surgical risk, acidosis and a liability to infection are now practically eliminated. However, other factors, namely arteriosclerosis, obesity and old age, still play important roles in the morbidity and mortality of the surgical diabetic. These are the factors which account for the prevalence of coronary heart disease, peripheral vascular lesions and renal disorders among the diabetics and in turn increase the surgical risk of such patients.

Patients with diabetics mellitus are commonly affected by other diseases but seem to be particularly prone to such surgical conditions as gangrene and gall-bladder disease. Diabetes *per se* is not a contraindication to operation but, as already implied, its common association with arteriosclerotic heart disease and its many complications not infrequently increases the surgical risk.

In estimating surgical risk in the presence of renal disease I would like to refer to Morrison's[3] observation that poor kidney function appeared to enhance the surgical risk of patients with arteriosclerotic heart disease. In an effort to define some danger line of renal function for patients with arteriosclerotic heart disease he tested various combinations of the blood urea nitrogen, phenolsulfonphthalein and albumin excretion rates. The combination showing the greatest difference between the mortality group and the uncomplicated cases was a blood urea nitrogen of 20 mgm. per cent or more or a phenolsulfonphthalein of 50 per cent or less, or, albuminuria of 2+ or more. Forty-one per cent of the deaths and complications had one or more of these evidences of poor renal function as against only 11 per cent for the uncomplicated group.

RENAL DISEASE

The circulatory system is affected in almost all phases of renal disease since heart and kidney function are so closely related.[6] In chronic kidney disease the state of the circulation is often the most crucial factor in determining surgical risk. The three main factors in patients with kidney disease which involve the heart and circulation and thereby influence operative risk are hypertension, accumulative retention of water, and electrolyte disturbances.

In estimating the patient with chronic renal disease as to surgical risk, attention should be directed not only to his renal function but to the status of his heart and circulation.

Since it is my impression that the other members of this panel, Dr. J. Garrott Allen and Dr. Nicholas M. Greene, will discuss such problems as anemia, hypovolemia, hypoproteinemia, hypotension of reflex origin versus that of loss of blood volume, the influence of pulmonary and hepatic diseases on operative risk, and the problems of previously administered tranquilizers, antihypertensive blocking agents as well as the matter of cortisone-induced hypoadrenalism in anesthetized patients, I purposely have omitted reference to them. The same holds true for those medical problems with which I have had little or no personal experience. It is quite likely that they may be brought up during general discussion by the panel.

In conclusion let me emphasize that in the year 1957 the best way to estimate the operative risk of patients is to submit them to a careful and detailed history, a thorough physical examination, supplemented by indicated laboratory tests, and finally, to electrocardiographic and radiographic study. Such a careful preoperative evaluation will lead to a correct estimation of operative risk in the majority of instances. Furthermore, such an evaluation is the joint responsibility of the anesthesiologist, the internist and the surgeon.

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PRACTICAL PHYSIOLOGY OF THE NEWBORN AND PREMATURE

HERBERT S. HARNED, JR., M.D., *New Haven*

The Author. *Assistant Professor of Pediatrics, Yale University School of Medicine, New Haven, Connecticut*

SUMMARY

A review of circulatory and respiratory physiology of the newborn emphasizes the inadequate oxygenation of the fetus and newborn as a cause of the high mortality and morbidity of the perinatal period.

A systematic approach to premature care is provided by analysis of the physiologic handicaps of the premature infant.

The perinatal period, so appropriately described by Dr. Clement Smith of Boston as the "valley of the shadow of birth", is a period of great danger for the infant. Approximately 290 of every 10,000 infants die before, during or shortly after delivery. The danger of this period may be emphasized by the fact that only about 100 of every 10,000 infants who survive the neonatal period will die during the balance of the first year of life.

Deaths at birth or during the first few days may be conveniently categorized as shown in Table I. These categories provide us only with an indication of the types of problems we confront. Their causes, their pathophysiology, and the possible

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methods by which these disorders can be successfully prevented or treated demand far more exacting analysis.

Table I

Newborn Deaths

1.	Macerations	18%
2.	Malformations	12%
3.	Prematurity	25%
4.	Trauma	14%
5.	Infections	5%
6.	Erythroblastosis	2%
7.	Syphilis	2%
8.	Anoxia	22%

Macerations are associated with toxemia of pregnancy in about 25 per cent of cases. An important causative factor in macerations, whether they are due to toxemia or not, would appear to be interference with the placental blood supply. Congenital malformations may be a result of inheritance or of fetal damage by radiation, by anoxia, or by infections such as rubella. The category of prematurity includes only those infants for whom other causes of death could not be found. Many of these infants, who weigh less than 1,000 grams, died because their respiratory systems were inadequate for their oxygenation. Actually, about one half the babies who die during the perinatal period are premature so that they are particularly prone to several of the other disorders listed. The last category, anoxia, includes a variety of conditions: atelectasis, hyaline membrane disease, postmaturity syndrome, and apnea neonatorum which may be a result of excessive anesthesia or analgesia, premature separation of the placenta, prolapse of the cord, and airway obstruction. It thus is apparent that inadequate oxygenation of the fetus and newborn is of prime importance in these mortality statistics. The role of poor fetal oxygenation as a cause of cerebral palsy and of some types of mental deficiency, such as mongolism, adds even more weight to the importance of this tissue oxygenation factor.

Because of the importance of tissue oxygenation in the survival and well-being of the fetus, it is important to review some of the features of fetal respiratory and circulatory physiology as they pertain to fetal oxygenation. Gestation can conveniently be divided into three periods. The first trimester is involved with gross organ differentiation, the second trimester is involved with finer structure differentiation, and the third trimester with the period of growth. During the first eight weeks of life, anoxia may produce gross organ defects or congenital anomalies. Late in pregnancy, anoxia may cause intraventricular hemorrhage, brain damage or still birth.

To understand the oxygenation of fetal tissues certain features of fetal circulation should be reviewed.[1] First, the placental blood flow is extremely large. Second, the blood reaching the fetus by way of the umbilical veins becomes progressively less oxygenated as gestation continues, falling from a value of 90 per cent saturation near the end of the first trimester, to 70-80 per cent one week before birth, and to about 50 per cent at birth. This umbilical vein blood enters into the inferior vena cava, having partially by-passed the liver via the ductus venosus. Most of this blood preferentially is shunted via the foramen ovale to the left atrium, left ventricle and out the proximal aorta to the head and arm vessels. In this way, all through pregnancy and until the umbilical arteries go into spasm at birth, oxygenated blood is preferentially offered to the brain of the fetus.

The complex fetal circulation is simplified immediately at birth when functional closure of the foramen ovale and ductus arteriosus occurs. The foramen ovale closes because first, the large placental flow is immediately cut off so that the venous return to the right atrium falls and the right atrium pressure falls. Secondly, with breathing initiated, pulmonary resistance falls, the pulmonary blood flow greatly increases and the left atrial pressure rises. This rise in left atrial pressure causes overlapping of tissue flaps surrounding the foramen ovale resulting in its closure.

The ductus arteriosus probably closes as a result of direct action of the increased oxygen tension of the blood on the ductus. In human babies this closure may not be complete for the first 24 hours.

Within a matter of minutes the normal baby achieves the change from the fetal to adult circulation in a very efficient manner. That this may not always be effectively performed has been suggested by Lendrum in his discussion of hyaline membrane disease.[2] He has suggested that the increased pulmonary blood flow with breathing puts a great load on the left ventricle. For the premature infant, who is particularly subject to hyaline membrane disease, Lendrum proposes that the poorly developed left ventricle cannot accept this load and left ventricular failure develops with extravasation of plasma into the pulmonary alveoli.

Table II
Stages of Apnea (Flagg)

DEPRESSION	SPASTICITY	FLACCIDITY
slight cyanosis	extreme cyanosis	pallor
good muscle tone	decreased muscle tone	absent muscle tone
slow, strong heart	poor heart impulse	occas. heart impulse
slow respirations	irregular gasps	rare gasp
strong cord pulse	poor cord pulse	no cord pulse

Defective circulation plays a significant role in apnea neonatorum. In this disorder, which may have multiple causes, several stages of severity are recognized as shown in Table II. Flagg clearly indicates that the circulation is greatly compromised in the flaccid apneic state, also called "asphyxia pallida", by the observation that there are only occasional heart impulses and no cord pulses. By studying the circulation of newborn lambs, I have described a predictable sequence of circulatory events during progressive asphyxia of the newborn.[3,4] After an initial tachycardia the cardiac output of the newborn lamb is rapidly decreased by a slowing of the heart rate through AV heart block. This is followed by a consistent fall in aortic blood pressure in association with electrocardiographic signs of anoxia, including nodal rhythm, changes in the ST takeoff and terminal merging of the QS and ST segments. I also have found that improvement in the oxygenation of the blood will not always reverse this state. Because of this poor circulatory status many of the drugs given to stimulate apneic infants have not been effective if given subcutaneously or intramuscularly. It is recommended that medications used at this time should be given intravenously.

Despite the importance of the circulation during apnea neonatorum, I do not wish to imply that efforts to initiate respiration should not be applied. Obviously the airway must be cleared and most experts agree that gentle positive pressure ventilation should be initiated. By this resuscitative technique enough oxygen might be transported to the higher centers of respiratory integration in the brain so that rhythmic breathing can be established. This mechanism is quite similar to the spontaneous gasping respirations, initiated in the unresponsive newborn by an anoxic stimulus to the central nervous system, which also may provide enough oxygen to the respiratory center to establish rhythmic breathing.

The premature infant must undergo the great physiological changes at birth with many handicaps. Analysis of these handicaps provides a systematic approach to premature care in the same way study of the pathophysiology of an adult disorder promotes scientific treatment.

The most important physiologic handicaps of the premature infant are respiratory deficiencies.

First, poor development of the lungs and alveoli may prohibit complete expansion of the lungs and adequate oxygenation of the pulmonary blood.

Secondly, the poorly developed thoracic cage may contract so that good diaphragmatic excursions are associated with sucking in of the anterior chest and poor air exchange.

Thirdly, respirations are periodic, perhaps because of the moderate anoxic state of the premature which may affect the rhythmic response of the respiratory center. The anoxia of the premature infant may be responsible for his chronic metabolic acidosis.

These deficiencies in respiration are frequently a great threat to the life of the premature infant. The tendency to develop hyaline membrane disease further threatens him. All of these respiratory handicaps might be improved by surrounding the infant in an atmosphere high in oxygen. This is done, but the concentration of oxygen and the duration of its use must be carefully checked to avoid the tragedy of retrolental fibroplasia, and often blindness caused by overuse of oxygen during prematurity.

Other handicaps that the premature has are not as important so far as immediate survival is concerned but become of great importance when the infant is subjected to stress, particularly infection.

The renal defects that the premature shows are (1) an inability to concentrate urine, (2) decreased glomerular filtration rate, (3) decreased tubular excretion, and (4) possible increased tubular reabsorption of chloride and base. The stress of infection with diarrhea may result in severe, fatal acidosis far more readily than in the full term newborn.

Defects in temperature regulation in the premature result from (1) inadequate vasomotor control, (2) inability to sweat, (3) lack of subcutaneous fat, (4) the premature's large surface area, and (5) poor shivering function. It is believed advisable to maintain the premature's temperature below that of the normal, full term infant and to avoid wide fluctuations in temperature. This is best performed by setting the incubator temperature between 86 and 90 degrees. Except for prematures with respiratory distress the incubator humidity should usually be set at about 65 per cent.

Cardiovascular and hematologic defects which the premature may have are (1) possible left ventricle weakness as described above, (2) vascular fragility, (3) variable prothrombin level, and (4) anemia of prematurity. This latter condition of anemia appears to be quite refractory to iron treatment, especially early in life. Most authors believe that prophylactic iron diminishes the severity and duration of this anemia.

Metabolic and nutritional defects include (1) reduced antenatal storage of Ca, phosphorus, and probably vitamin D, associated with great demand for these because of the rapid growth of the premature, (2) hypoglycemia, (3) hypoalbuminemia, (4) hyperbilirubinemia, (5) poor fat absorption, and (6) poor absorption of the fat soluble vitamins. The premature needs to deposit much calcium and phosphorus in bone just as does the third trimester fetus. The acidosis of the premature may promote calcium excretion. The poor fat absorption provides the reason for the use of low fat milks in premature feeding which are now so widely and successfully used. Hyperbilirubinemia can be of such severity as to cause kernicterus in prematures who have no evidence of erythroblastosis fetalis. Large doses of vitamin K for prematures have been shown to cause hyperbilirubinemia. Gantrisin therapy appears to predispose these infants with hyperbilirubinemia to development of kernicterus.[5]

The premature infant has very poor immunity to infections because of (1) receipt of less immune substances through the placenta, (2) impaired capacity to manufacture immune substances, and (3) more accessible portals of entry. These infants have low serum globulin levels.

Knowledge of these defects in physiology of the premature infant provides us with the reasons for the present day treatment. The use of the incubator with its controlled temperature, humidity, and oxygen environment; the low fat, high protein feedings given so carefully by skilled hands; the vitamin intake; the needed awareness of insidious, but serious infection; the awareness of severe respiratory disorders. Knowledge of the causes of prematurity is far less specific and I can say only that prematurity is often associated with maternal conditions such as toxemia, infections, cardiac disorders, pelvic pathology, and placental pathology.

In attempting to provide a physiologic background for considering neonatal medical problems I might stress two final points. First, most of the important clinical problems are related to respiration and oxygenation of the fetus, the newborn, and the premature. Secondly, there is great room for increased knowledge and improved care of children in this "valley of the shadow of birth". Newborn care remains the only major area of pediatrics where mortality and morbidity figures have not been spectacularly improved over the last twenty years.

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CANCER OF THE COLON

An Analysis of 858 Cases in 20 Years

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SUMMARY

Eight hundred and fifty eight cases of carcinoma of the colon including rectum are presented. These were treated during the last twenty years from 1935 through 1954, in the Bridgeport Hospital, Bridgeport, Connecticut. This study is based chiefly on the comparative survey between the former decade 1935 through 1944 and the later decade 1945 through 1954. There were 325 cases of cancer of the colon in the former decade and 533 cases in the later decade. This is an apparent increase of 24.1 per cent.

The rate of incidence at varying sites in decreased order is: Rectum, Sigmoid, Cecum, Descending, Transverse and Ascending Colon. Lower colonic cancer is more frequent in the male and upper colonic cancer is more frequent in the female. The total figure shows a slight predominance in males. Most of the patients were in the older age group with the majority falling in the sixth deeade.

Attention is called to the greatly increased incidence of regional metastases, to the rapidly increasing resectability rate, to the lack of improvement in the five year rate in the sigmoid and rectum, and to the five year survival rate of patients without regional metastasis after surgery which was found to be twice that with regional metastasis.

There are numerous statistical studies of cancer of the colon on record. Some of the vital statistics reveal that the incidence of cancer of the colon now closely approaches that of stomach cancer as the cause of death from malignancy.[1] The rapidly increasing incidence of the colon cancer is becoming one of the most important subjects for the physicians. Ottenheimer[2] reported that cancer of the colon is the most common cancer in Connecticut through a survey from 1935 to 1945. In this survey cancer of the colon showed a frequency of 16.5 per cent while breast cancer showed 13.8 per cent and cancer of the cervix, 5.6 per cent. Progress in the management of cancer patients can be measured only by periodic evaluations of the results in carefully followed series.

In this study is presented a detailed analysis of 858 cases of colon cancer, including rectum, treated during the last 20 years from 1935 through 1954 at the Bridgeport Hospital, Bridgeport, Connecticut. The data was obtained from the tumor clinic in the hospital, in which all of the detailed history, treatment, hospital course, pathological records and persistent follow-up have been carefully recorded. However, since these cases had been managed through 20 years by many physicians who had different training, technique and experiences, there were many difficulties encountered in carrying out a careful statistical study. Reference was made to hospital charts where necessary and some incomplete records were excluded from this investigation in some fields of this study.

INCIDENCE (SITE, AGE, SEX)

There are 325 cases of colon cancer on record in the decade from 1935 through 1944, and 533 cases in the decade from 1945 through 1954. Thus there is an apparent increase of 24.1 per cent between these two decades. Expediently six different divisions can be made: Cecum, Ascending, Transverse (including hepatic flexure), Descending (including splenic flexure), Sigmoid (including rectosigmoid region) and Rectum (including anus). There are only five cases of squamous cell carcinoma of the anus included in the Rectum. The incidence in these six different divisions is shown in Table I: Rectum 306 cases (35.7 per cent), Sigmoid 272 cases (31.8 per cent), Cecum 98 cases (11.8 per

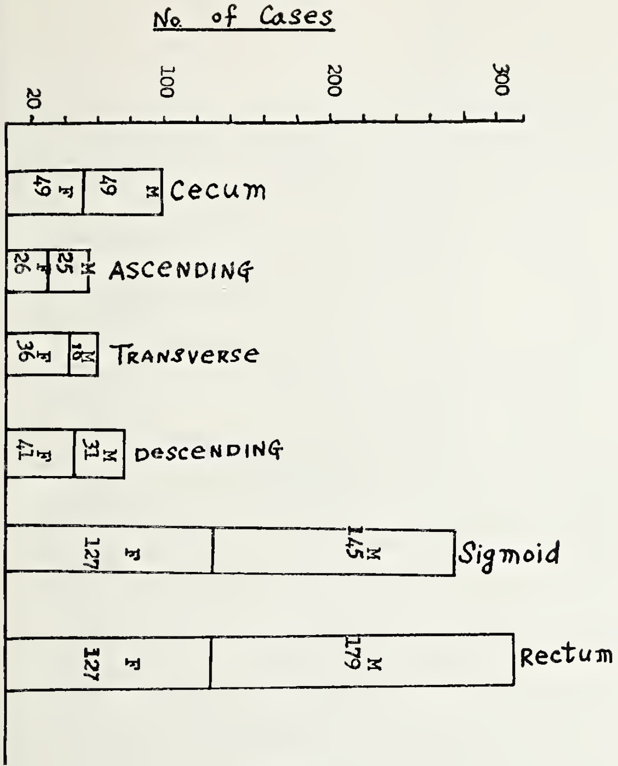


FIGURE 1

cent), Descending 72 cases (8.2 per cent), Transverse 55 cases (6.2 per cent), and Ascending 51 cases (6.2 per cent). There are 452 males and 406 females. Note in Figure 1 that the occurrence of cancer of the transverse and descending colon is greater in the female than the male, while the reverse is true in the sigmoid and the rectum.

Figure 2 shows age distribution for each decade of life. The extremes are 25 and 88 years old. Most of the patients are seen between the fifth and seventh decades. The rectum, sigmoid and transverse reveal a peak in the sixth decade, descending and ascending in the fifth decade and cecum in the seventh decade. The greatly increased incidence of colon cancer is commonly related to the obvious increased life expectancy during the recent decades.[3] In the total of 858 cases, 48 cases or 5.3 per cent had family history of cancer in various sites. Incidentally, there were found 48 patients or 36 per cent of 299 patients from 1950 through 1954 who had previous abdominal surgery for reasons other than malignancy.

SYMPTOMS AND SIGNS

The symptoms and signs of colon cancer in each site are analyzed in Table I. Changes of bowel habit and rectal bleeding are more common in the lower portion of the colon, and abdominal pain and distress, anemia, vomiting and nausea and weight loss are seen more frequently in the upper colon. In the ascending, transverse, descending and sigmoid colon signs of intestinal obstruction are frequent. Some cases were discovered at operation for peritonitis due to perforation through an ulcerated cancer. These cases were more frequent in the ascending, cecum and sigmoid colon and frequently misdiagnosed as perforated appendicitis or diverticulitis. In the upper colon 42 to 58 per cent of the cases had an externally palpable mass, and in the rectum tumor was found through digital, proctoscopic or sigmoidscopic examination in 66.1 per cent of the cases. About 18.5 per cent of the cases had persistent constipation for more than five years duration without signs of malignancy but

TABLE I
VARIOUS SYMPTOMS IN 854 PATIENTS

	CECUM	ASCENDING	TRANSVERSE	DESCEND.	SIGMOID	RECTUM
Constipation	35.7%	37.2%	34.9%	54.2%	51.1%	44.1%
Diarrhea	17.3%	23.5%	25.5%	16.7%	31.3%	35.3%
Vomiting & Nausea	26.5%	35.3%	47.3%	16.7%	21.3%	8.2%
Abdominal Pain	75.5%	64.7%	85.5%	79.2%	63.2%	42.7%
Rectal Bleeding	24.4%	17.6%	36.4%	25.0%	44.9%	61.1%
Anemia	33.7%	35.3%	38.9%	20.8%	17.6%	14.7%
Weight Loss	46.9%	50.0%	43.6%	27.2%	41.1%	42.1%
Obstructive Symptoms	8.1%	35.3%	34.9%	38.9%	27.6%	8.8%
Palpable Mass	58.2%	57.0%	41.8%	36.1%	21.3%	3.6%
Mass on Rectal Examination				1.4%	19.5%	66.1%
Perforation	9.8%	11.7%	5.4%	6.9%	10.3%	3.3%
Total Cases	98	51	55	72	272	306

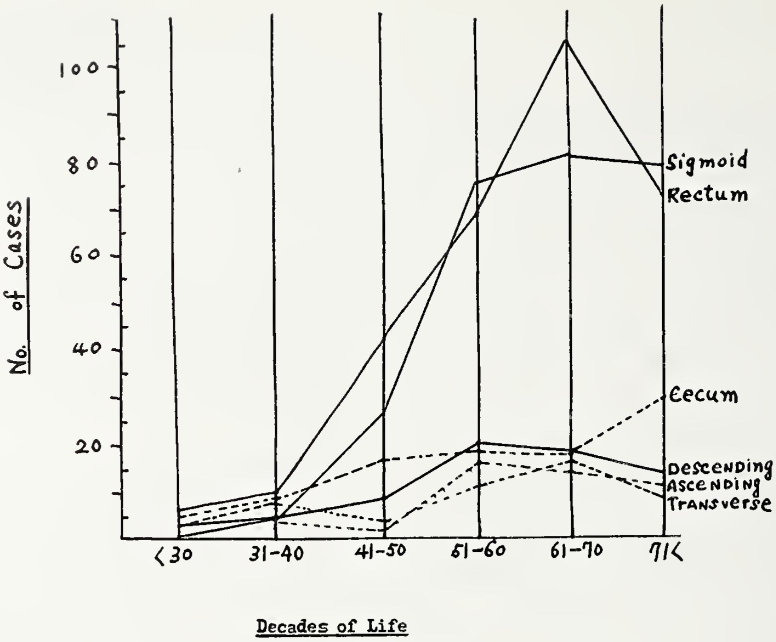


FIGURE 2

this symptom was not always noted in the charts. This table suggests the necessity of further study of the relationship between constipation and cancer of the colon. Symptoms of urinary disturbance are seen in 10.5 per cent of rectal cancer and 48 per cent of sigmoidal cancer. Tenesmus is present in 12.5 per cent of the cases of rectal cancer.

Figure 3 shows the duration of symptoms. Patients with a history of less than one week duration consist mostly of cases of peritonitis with perforation and cases of intestinal obstruction. The highest incidence of delay is seen in the lower portion of the colon where the symptoms are frequently disregarded by the patients or mislead physicians, as in those with hemorrhoids. It is common knowledge that the symptoms of hemorrhoids may obscure the symptoms of the lower colonic carcinoma. More attention to such symptoms as changing bowel habits with weight loss would lead to proctoscopic examination and earlier recognition of neoplastic lesions.

DIAGNOSIS AND PATHOLOGICAL DATA

Among the 858 cases in the tumor clinic files, 854 cases have been selected and four cases were discarded because of insufficient data for diagnosis. Of the 854 cases, 75.9 per cent were proven microscopically, 15.2 per cent by x-ray and the other signs, and 18.9 per cent by digital, procto-or sigmoidoscopic examination or exploratory operation. (Table II).

Many attempts have been made to predict the prognosis by classifying the grade of malignancy through various methods. However, the pathological study in this survey is limited to the occurrence of metastases and the size of the primary tumor rather than the grade of malignancy. It is conceded that some may be able to predict the prognosis on the basis of the grade of malignancy.[4, 5, 6]

In 422 cases exact measurement of primary tumors was done (Figure 4). Of the 422 cases 64.4

TABLE II
METHODS OF DIAGNOSIS

	CECUM	ASCEND.	TRANSVERSE	DESCEND.	SIGMOID	RECTUM	TOTAL
X-ray alone	30.6%	25.5%	30.9%	12.5%	13.2%	8.2%	15.2%
Micro. Exam.	48.0%	70.6%	65.5%	83.3%	80.2%	82.0%	75.9%
Other method	21.4%	3.9%	3.6%	4.2%	6.8%	9.8%	8.9%
Total cases	98	51	55	72	272	306	854

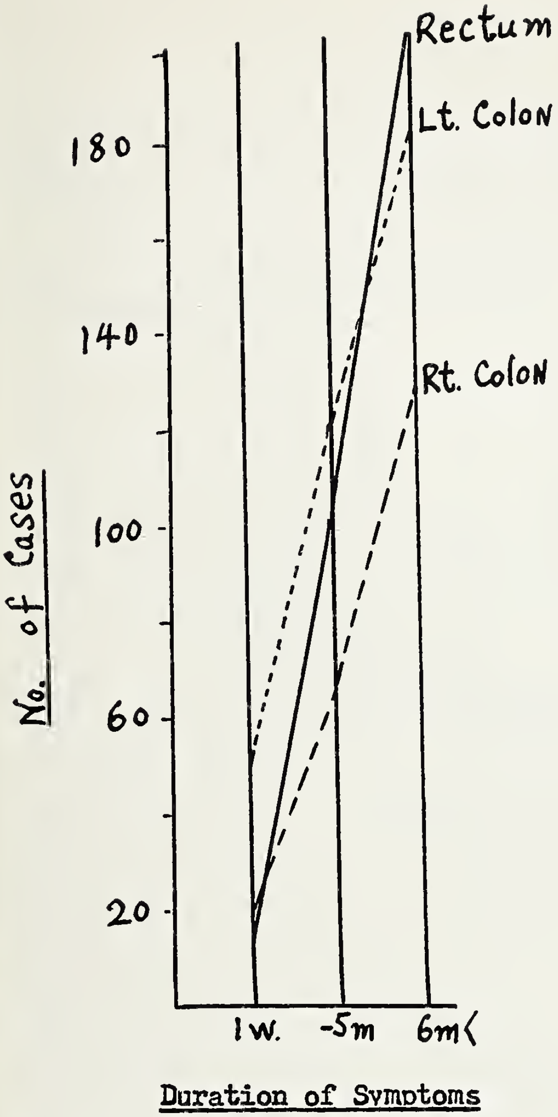


FIGURE 3

per cent showed diameter of more than 4 cm. Only 5.8 per cent were measured less than 2 cm. in diameter and most of these were rectal carcinomas.

On analyzing 652 cases without metastasis at the time of operation, in 81.1 per cent the entire thickness of the wall of the colon was invaded by the tumor cells, 15.4 per cent involved only the external muscle layer and 3.5 per cent, the submucosa only.

Table III indicates that the incidence of regional metastasis has increased about three times in the later ten years for all sites, while remote metastasis have decreased slightly.

The decreased incidence of remote metastasis in the left colon and rectum appears to be significant. These figures do not appear to correlate with the delay in diagnosis. In this regard Ottenheimer[2] suggests the influence of economic and educational factors in his comparative study of private and ward patients as helping to explain the above figures. He also states that the grade of malignancy of the tumor cells has increased in recent years.

TREATMENT

The 853 patients with colon cancer have been individually treated by about twenty surgeons

TABLE III

INCIDENCE OF METASTASIS IN 853 PATIENTS

		RT. COLON	LT. COLON	RECTUM
Regional Metastasis	1935-1944	10.0%	5.8%	10.6%
	1945-1954	36.2%	30.6%	24.5%
Remote Metastasis	1935-1944	25.2%	34.3%	28.6%
	1945-1954	31.8%	23.6%	20.5%

TABLE IV

NUMBER OF PATIENTS DEAD WITH METASTASIS WITHIN ONE MONTH AFTER PALLIATIVE SURGERY

	RT. COLON	LT. COLON	RECTUM	TOTAL
1935-1944	4	14	6	24
1945-1954	3	5	6	14

TABLE V

NUMBER OF PATIENTS DEAD WITH METASTASIS WITHIN ONE MONTH AFTER RADICAL SURGERY

	RT. COLON	LT. COLON	RECTUM	TOTAL
1935-1944	8	4	1	13
1945-1954	7	7	3	17

TABLE VI

PATIENTS DEVELOPING METASTASIS WITH RADICAL SURGERY

	RT. COLON	LT. COLON	RECTUM	TOTAL
1935-1944 (148 cases)	16 (10.8%)	24 (16.2%)	25 (16.9%)	65 (43.2%)
1945-1954 (389 cases	49 (12.6%)	82 (21.1%)	40 (10.3%)	171 (43.9%)

through twenty years. For purposes of this survey these patients are divided into the following three periods: 1935 through 1944; 1945 through 1950; and 1951 through 1954.

Since 1942 gradually increased utilization of blood transfusion and advanced uses of sulfonamide derivates are noted. The progress of antibiotics since 1946 and proper fluid therapy and other therapy directed by laboratory examinations, etc., strikingly encouraged the surgeons who are concerned with major surgery, compared to the former period of 1935 through 1944.

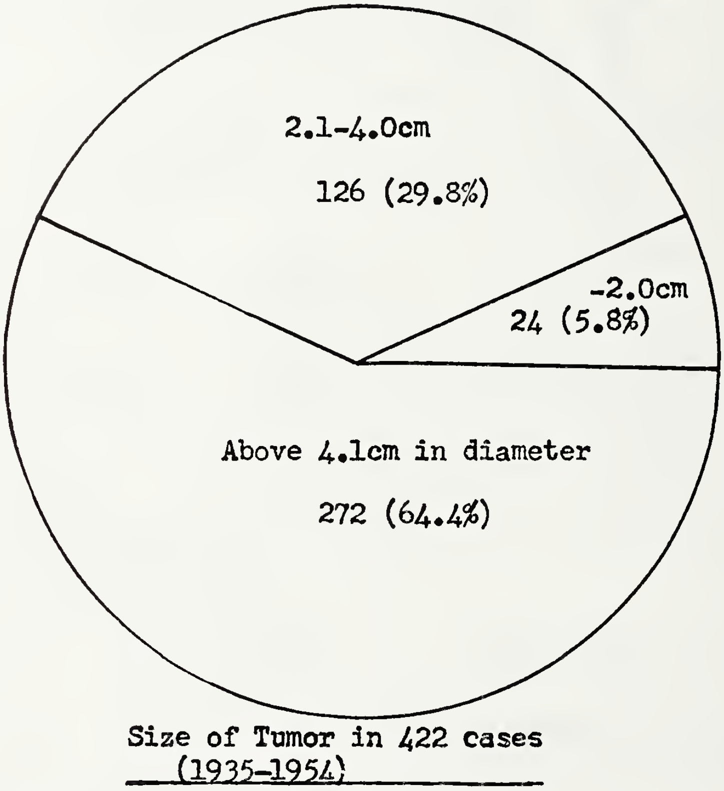


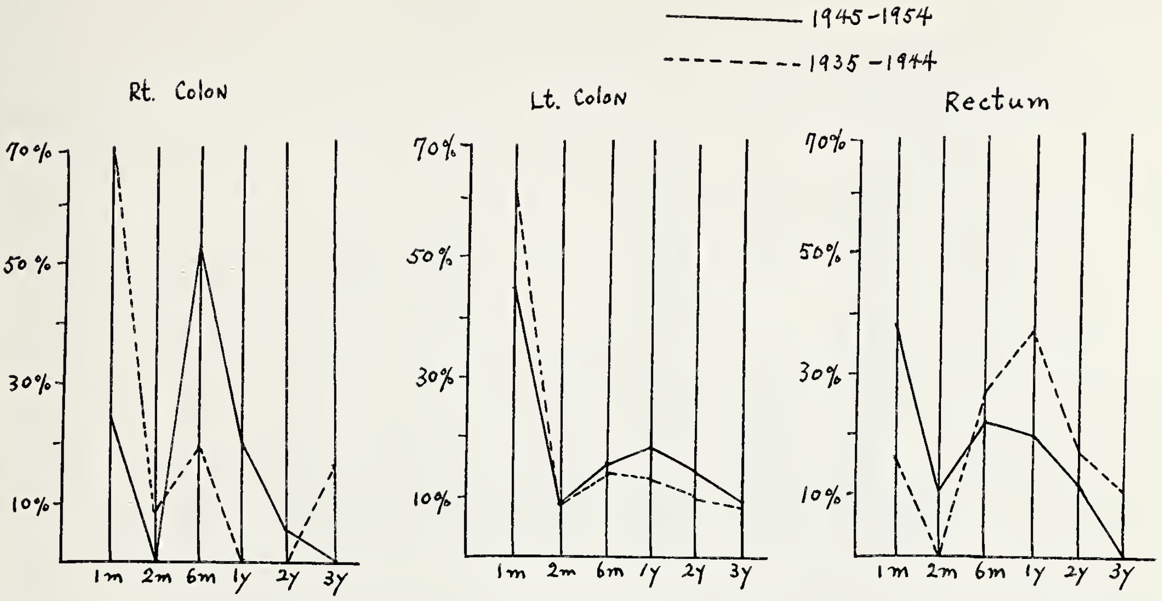
Figure 4

Radical surgery was carried out on 46.3 per cent in the first period, 70.1 per cent in the second period and 76.1 per cent in the third period. The radical resections consist of various methods of first stage resection, second stage resection and abdominal-perineal resection. Palliative surgery was applied to 18.3 per cent in the first period, 15.9 per cent in the second period and 12.9 per cent in the third period. Palliative surgery consists of various sites of colostomy and palliative resection. Patients without surgery were represented by 18.3 per cent in the first period, 14 per cent in the second period and 11 per cent in the third period.

This rising resectability rate has been reported frequently. The highest rate is 89.0 per cent in Grinnel's series,[7] 1946 to 1950, while Ottenheimer's series,[8] 1935 to 1945, showed a rate of 52.3 per cent.

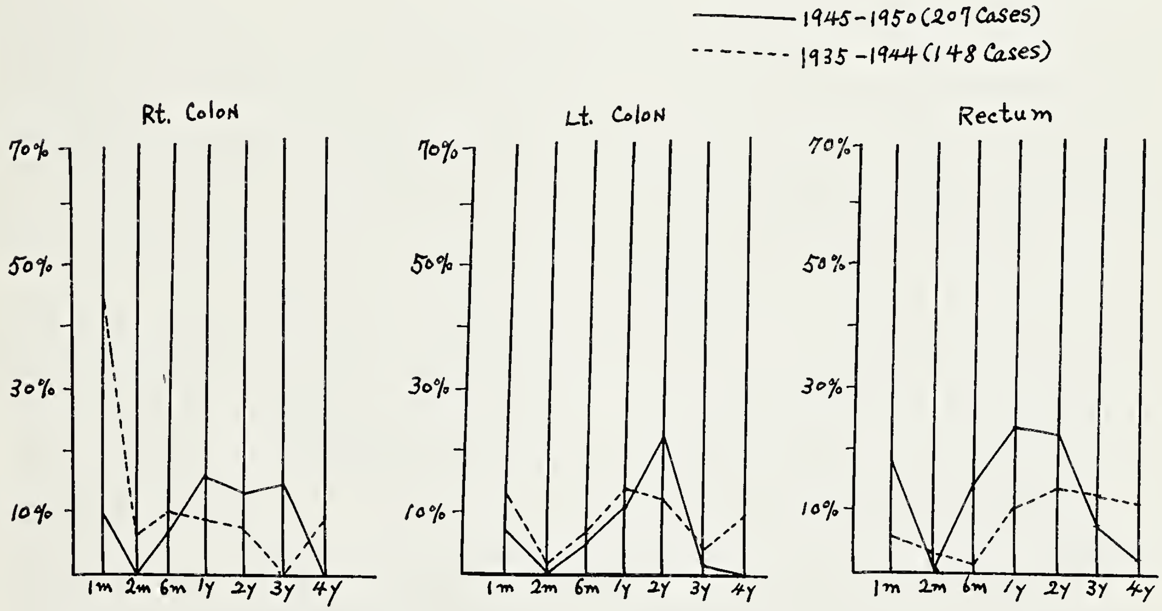
MORBIDITY, MORTALITY AND FOLLOW-UP STUDY

Figure 5 shows death rate after palliative surgery. Following palliative surgery 65.5 per cent of the patients died within one month during the former decade, while 35.5 per cent of the patients died within one month in the later decade. This is due to improvement in pre- and post-operative care. However, there is a considerably increased death rate following palliative surgery of carcinoma of the rectum within one month. Table IV shows no difference between the two decades in the frequency of metastasis in cases of death within one month after palliative surgery. The reason for the difference in results of palliative surgery of the rectum and the remainder of the colon is not apparent from this study. There are no statistical reports in



Death Rate After Palliative Surgery

FIGURE 5



Death Rate After Radical Surgery in 355 Cases

FIGURE 6

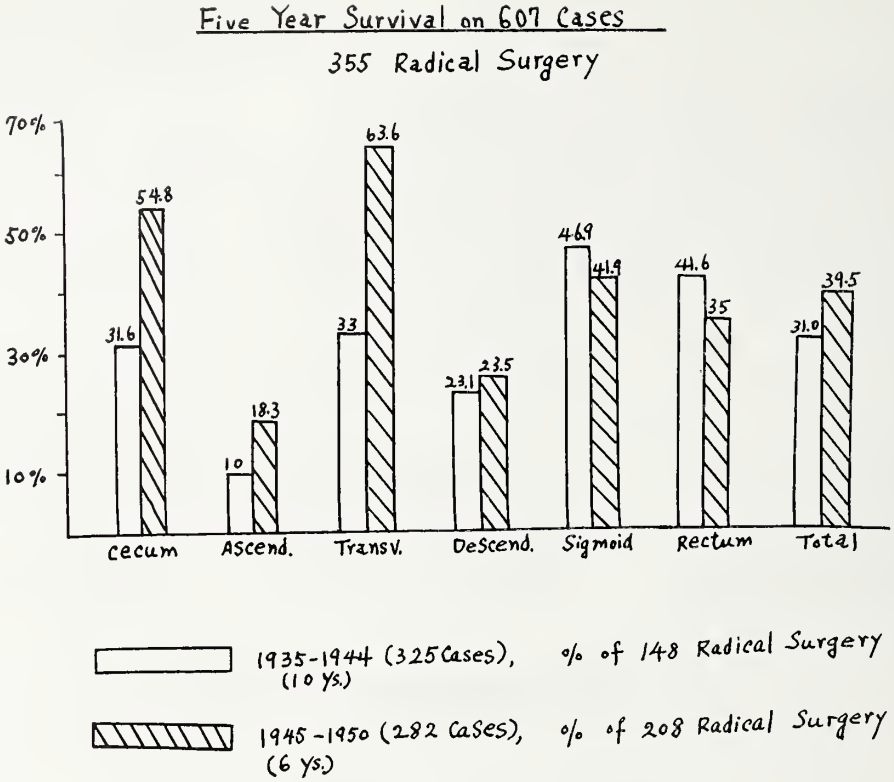


FIGURE 7

the literature concerning death rate after palliative surgery.

Figure 6 shows the death rate after radical colon resection. Many of the deaths occurring within one month after radical surgery are probably the result of operative management. The death rate within the first month in patients with rectal carcinoma shows a great increase in the later decade over the former. Table V shows a few more instances of metastasis in patients who died within one month after radical surgery in the later decade. Thus, the metastastic rate is not related to the result of death rate within one month after radical surgery.

Five year survival rate is figured in Figure 7. From 1935 through 1944, 325 patients were followed and from 1945 through 1950, 282 patients were followed.

There is a great increase in the survival rate seen in the right colon but here again the decreased rates of survival in the later decade for the sigmoid and rectum are noted. The five year survival rate is higher in the right colon than in the sigmoid and rectum. This figure is quite different from the study of Shallow[9] which showed a much higher survival rate in patients with rectal and sigmoidal cancer. However, Ottenheimer's study[2] figures are similar to ours. In this study the total five year survival rate is 33.7 per cent: in the former period from 1935 through 1944—31.0 per cent, and 39.5 per cent in the later period 1945 through 1950. Despite this overall improved survival rate accounted for by the improvement of colon cancer management, the sigmoid and rectum fail to reflect this increase. Table VI shows the rate of metastasis in patients with radical surgery. There is almost no difference in the rate of metastasis in patients with radical surgery between the two decades, and the rectum shows even a slight decreased rate of metastasis in the later decade. This study has failed to show any significant relationship between the sizes of the primary tumors and the cure rates. Table VII shows the difference of the five year survival rate after radical surgery between patients with regional metastasis and without metastasis. The five year survival rate of patients without regional metastasis is twice the rate of that with

Table VII
Five Year Survival Rate with and without Metastasis in 16 Years, 1935-1950

	RT. COLON	LT. COLON	RECTUM	TOTAL
With metastasis	20%	19.7%	20.1%	20%
Without metastasis	57.4%	43.5%	48.5%	49%

regional metastasis. Ottenheimer[2] stated "it might be said that progress in the management of cancer of the colon and rectum is slow but real". I have already learned that the rate of resectability is increasing and this has been constantly confirmed by many other authors.[2, 7, 8, 9]

I certainly know that we have more effective and efficient medical care available through pre- and postoperative management of the patients. Nevertheless, the progress in the management of cancer of the colon is slow or even quite disappointing in the lower colon compared to that of ten to twenty years ago. A further study of the biological characteristics of cancer of the colon and rectum through more pathological and statistical research must be expected and more careful judgment for resectability of colon cancer may be required.

This study was directed and led by Russell H. Pope, M.D., and the painstaking work was made possible by the great encouragement of Irving B. Akerson, M.D.

I express my hearty gratitude to Mrs. Mildred Robbins, R.N., in the Tumor Clinic for her kind cooperation.

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SUPPLEMENTAL ANESTHESIA

A Simple Technique For Cataract Surgery

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SUMMARY

The supplemental use of promethazine and meperedine for cataract extraction under local analgesia is reviewed. It has proved to be of value to the patients, surgeons and anesthetists for reasons mentioned. The results compare favorably with those of Nult,[1] who used meperedine and chlorpromazine in divided doses.

Many attempts have been made to develop ideal anesthesia for every situation. In this series of sixty cases, Promethazine and Meperedine were used intravenously to supplement local analgesia, in order to quiet the apprehensive patient undergoing cataract extraction.

METHOD

Vital signs, degree of patient cooperation and sedative effect were reviewed for the efficacy and continued use of this technique. Premedication consisted of 25 mgm. of promethazine or 100 mgm. of a barbiturate at bedtime; promethazine 25 to 50 mgm. two hours preoperatively, and meperedine 25 to 100 mgm. with atropine 0.3 to 0.4 mgm. one hour preoperatively depending on age and body build. A dilute solution of meperedine (0.05 per cent) was started 10 to 15 minutes prior to local infiltration with procaine or Xylocaine. An additional amount of promethazine (12.5 to 50 mgm.) was given in multiple doses intravenously, if the patient appeared apprehensive in spite of the premedication. Intravenous meperedine was continued until the patient remained quiet but responded to questioning. Approximately 25 to 50 mgm. was needed to produce this effect. The surgeon then prepared the field and infiltrated the eye according to the O'Brien technique. During the procedure the meperedine drip was regulated to keep the patient quiet. The airway was insured by altering the position of the patient's head. None of the patients would tolerate a pharyngeal airway. The drapes were kept off the patient's face by tucking them under the tray of the Mayo stand over the patient's chest. In elderly patients oxygen was administered prophylactically by ether hook.

RESULTS

Almost all the patients in this series were over sixty years of age, ranging from 47 to 80. All the patients were able to move on to the operating table by themselves. During infiltration they remained quiet and were able to move their eyes as directed by the surgeon. During the procedure many would begin to snore; the airway was then corrected as stated above. The average operating time was one hour and five minutes, during which time an average of 95 mgm. of meperedine was needed, ranging from as little as 25 mgm. to 150 mgm. Seventy-six per cent of the patients received additional amounts of promethazine intravenously (12.5 to 50 mgm.).

Blood pressure, pulse and respiratory rates remained stable throughout the procedure, except in seven patients whose preoperative systolic pressure was over 160 mm. Hg. In these patients there was encountered a gradual fall in the systolic pressure of 30 mm. Hg and 10 mm. in the diastolic pressure. The fall in blood pressure was accompanied by a decrease in pulse and respiratory rates. We attributed the low incidence of fall in blood pressure to the low blood levels of promethazine and meperedine required when used in combination. At no time had there been noted any central nervous stimulation as mentioned by Sugioda.[3] Two patients of this group had a loss of vitreous as a result of squinting during the operation; the squinting was indicative of an incomplete block.

DISCUSSION

The use of intravenous meperedine has enjoyed increasing popularity as a supplemental agent. Our group of surgeons and anesthetists have found our method of combining promethazine and meperedine very satisfactory. Patients could be sedated adequately without producing significant changes in the vital signs. Regulation of the amount of meperedine needed was relatively easy, by watching the reactions of the patient. The surgeon's enthusiasm is based on the following reasons: (1) the patient is not apprehensive; (2) this makes the operator more relaxed; (3) the eyeball is soft, which (4) makes stripping the zonules easier; (5) the operator is able to speak freely during the procedure; (6) postoperative sedation is minimized; (7) recovery is smoother, quicker, and without apprehension; (8) lid swelling is minimal; (9) there is no postoperative vomiting; (10) the patient accepts operation on the second eye more readily.

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LIVER DYSFUNCTION FOLLOWING CHLORPROMAZINE THERAPY

A Report of Twenty Cases

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THE wide use of chlorpromazine for the treatment of many clinical conditions is common practice. However, both hepatic and bone marrow disturbances have been associated with its use.[1-4] During a recent study of over 300 hospital patients with all types of hepatic disorders,[5-6] 20 were encountered in whom evidence of liver dysfunction followed treatment with chlorpromazine. The present report deals with the clinical and laboratory course exhibited by these 20 cases.

METHODS

The cases reported herewith were uncovered during a systematic survey of all the patients admitted to the Hartford Hospital over a sixteen month period with clinical or laboratory evidence of impaired liver function. The patients and their charts were reviewed at frequent intervals. Each patient was questioned and examined by one of us, and follow-up examinations were performed two to three times a week.

The following standard tests of liver function were employed: serum bilirubin,[7] alkaline phosphatase,[8] serum cholesterol and esters,[9] thymol turbidity,[10] total protein and albumin-globulin ratio[11] and the cephalin flocculation.[12] Complete blood counts were performed in most instances and were repeated as necessary. Oral cholecystograms and other x-ray studies were done when possible.

RESULTS

As might be expected, the majority (75 per cent) of these patients were given chlorpromazine for relatively benign or mild psychiatric conditions

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SUMMARY

Chlorpromazine hepatic sensitivity reactions are not uncommon in a general hospital patient population. Twenty cases were detected at Hartford Hospital in a 16 month period. The initial symptoms tended to occur within the first two weeks after onset of therapy and, in general, followed a pattern characterized by chills, fever, malaise, gastrointestinal symptoms and the appearance of clinical jaundice in 65 per cent of these patients. All patients exhibited an elevated serum alkaline phosphatase, 80 per cent had elevated serum total cholesterol and 75 per cent had elevated serum bilirubin (with elevated direct reacting bilirubin in 93 per cent of the hyperbilirubinemic group). Elevated erythrocyte sedimentation rates, peripheral eosinophilia and depression of the serum cholesterol ester fraction percentage were other frequent findings. The average time of total hospitalization was three weeks and almost half of the cases demonstrated jaundice at the time of discharge. Since the majority of the patients received chlorpromazine for relatively benign or mild psychiatric disorders, the random use of this drug is seriously questioned.

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(Table I). The other indications, when known, are listed. Patients with preceding or concurrent hepatic disease, such as cirrhosis or malignancy, primary or secondary, were excluded from this series by history, physical examination, laboratory and x-ray studies.

There was no correlation between the onset of symptoms and the individual daily dosage, total dosage received or total duration of chlorpromazine therapy (Table I). It is worthy of note that the average dosage in these patients was comparable to that generally employed. The initial symptoms were noted, on an average, 12 days after the beginning of therapy, with 70 per cent of the cases having the onset in two weeks or less.

The clinical picture initially manifested itself as a grippe-like illness characterized by chills, fever and gastrointestinal complaints. Later in the course of the illness, jaundice was often observed.

As recorded in Table II, fever or chills were present in 17 (85 per cent) of the patients. These were the first symptoms indicating drug reaction and usually lasted from one to three days. The gastrointestinal disturbances followed the fever or chills in 15 of the 17 cases. Subsequently, clinical evidence of jaundice, usually with pruritus, developed in 60 per cent of the patients by the time of admission. It is interesting to note that abdominal pain, most commonly epigastric, was present in nine patients. An enlarged liver was also noted in nine individuals. Enlargement of the spleen was less frequent, being noted in four instances.

The chemical findings were consistent with biliary tract obstructive jaundice and were characterized by an elevated serum alkaline phosphatase (100 per cent), total serum bilirubin (75 per cent) and total serum cholesterol (80 per cent) (Table III). The total cholesterol was less than 65 per cent

TABLE I
LIVER DYSFUNCTION

PATIENT	CHLORPROMAZINE AVERAGE ORAL DAILY DOSE (mgm)	INTERVAL FROM ONSET THERAPY TO INITIAL SYMPTOMS (days)	DURATION OF TREATMENT (days)	CHLORPROMAZINE TOTAL DOSE (mgm)	INDICATIONS FOR TREATMENT
1	75	20	30	2250	Psychoneurosis
2	40*	10	14	560	Psychoneurosis
3	40	10	10	400	Psychoneurosis
4	60†	7	11	685	Psychoneurosis
5	25	7	11	275	Nausea & Vomiting
6	20-50	7	14	280-700	Psychoneurosis
7	25-100	14	20	1480	Psychoneurosis
8	75	12	6	450	
9	75	3	7	525	
10	75	4	7	525	Psychoneurosis
11	75	18	18	1350	Psychoneurosis
12	50-100	18	20	1650	Psychoneurosis
13	75	14	14	1050	Psychoneurosis
14	40	21	21	840	Psychoneurosis
15	100	5	5	500	
16	200	6	6	1200	Psychoneurosis
17	40	14	16	640	Psychoneurosis
18	?	10	7	?	Psychoneurosis
19	25**	30	6	150	Nausea & Vomiting
20	?	?	?	100-250	Psychoneurosis
AVERAGE	66	12	13	800	

* Syrup

** Intramuscular

† This patient was given one additional 25 mgm tablet twenty-three days after the onset of the initial symptoms and nineteen days after therapy was stopped. Twenty-four hours later, icterus and dark urine were noted for the first time.

Table II
Incidence of Signs and Symptoms on Admission

PATIENT	AGE	SEX	FEVER	ANOREXIA	NAUSEA OR VOMITING	CHILLS	JAUNDICE	PRURITUS	ABDOMINAL PAIN	PALPABLE LIVER	PALPABLE SPLEEN
1	66	F	+	+	+	+	+	+	0	0	0
2	64	F	+	+	+	0	+	+	+	+	+
3	44	M	+	+	+	+	+	+	0	+	+
4	15	F	+	+	+	+	0	0	+	0	0
5	23	F	+	+	+	+	0	0	+	0	0
6	49	F	+	+	0	+	0	0	+	+	0
7	54	F	+	+	0	+	+	+	+	+	0
8	52	F	+	+	0	+	0	+	+	0	0
9	38	F	+	+	+	+	0	0	0	0	0
10	35	F	+	0	+	0	0	+	0	0	0
11	13	M	0	+	+	0	+	+	0	0	0
12	41	F	0	+	+	0	+	+	0	+	0
13	44	F	+	+	+	+	+	+	0	+	+
14	69	F	0	0	0	+	+	0	0	0	+
15	47	F	+	+	+	0	+	+	+	0	0
16	28	F	+	0	0	+	0	0	0	+	0
17	71	F	+	0	+	+	0	+	0	0	0
18	37	F	+	+	+	+	+	0	+	+	0
19	60	F	+	+	+	0	+	0	+	0	0
20	65	F	0	+	+	0	+	0	0	+	0
TOTALS			16	16	15	13	12	11	9	9	4

Table III
Laboratory Results*

PATIENT	ESR†	EOSINOPHILS PER CENT Smear	ALKALINE PHOSPHATASE (a)	SERUM BILIRUBIN (b)	CEPHALIN FLOCCULATION 24 hr./48 hr.	TOTAL SERUM CHOLESTEROL (c)	CHOLESTEROL ESTERS PER CENT (d)
1	47	1	21.2	15.0 (9.0)	0/0	350	53
2	110	9	12.2	9.4 (5.4)	0/1	344	53
3	56	22	26.3	9.5 (5.5)	0/0	350	64
4	—	16	15.3	1.6 (0.9)	0/0	318	67
5	54	4	10.5	1.0 (0.3)	0/0	208	74
6	58	34	15.8	0.4 (0.1)	0/0	242	67
7	50	20	17.6	7.1 (4.8)	0/0	358	58
8	30	4	14.7	1.2 (0.4)	2/2	318	75
9	68	4	8.3	0.9 (0.3)	0/0	280	74
10	20	10	7.1	0.5 (0.05)	0/0	354	73
11	66	3	10.3	1.8 (0.8)	0/0	182	75
12	6	3	9.4	3.2 (2.0)	0/2	251	68
13	51	9	8.6	7.2 (3.8)	0/0	350	63
14	27	2	14.9	5.6 (3.3)	0/0	318	56
15	77	25	8.6	4.1 (2.5)	0/0	276	57
16	36	6	11.2	1.5 (0.9)	0/0	194	62
17	12	3	11.1	7.1 (4.4)	0/0	350	—
18	45	5	41.4	17.5 (9.8)	0/0	685	18
19	110	0	16.8	13.3 (8.3)	0/0	470	13
20	67	3	13.0	7.3 (4.7)	0/0	332	61
AVERAGE	52	9	14.7	5.8		314	60

* Most Abnormal Value Obtained During Hospitalization

† Erythrocyte Sedimentation Rate (Westergren)

Normal Values in H. H. Laboratory:

(a) 1.5-5.0 Bodansky Units
(b) up to 1.2 mgm %
(c) 150-250 mgm %
(d) 65% or above

Table IV
Comparison of Values During Hospitalization with Discharge Values

	ALKALINE PHOSPHATASE		SERUM BILIRUBIN	
	DURING HOSPITALIZATION	DISCHARGE	DURING HOSPITALIZATION	DISCHARGE
NUMBER OF CASES TESTED	20	18	20	18
MEAN VALUE	14.7	7.7	5.8	2.3
PER CENT ABNORMAL VALUES	100	83	75	44

esterified in 11 of 20 patients, while the cephalin flocculation was essentially normal in all instances. Additional noteworthy findings were an elevated erythrocyte sedimentation rate above 30 mm/hour (Westergren) in 14 of 19 patients and peripheral eosinophilia greater than four per cent in ten instances. The latter finding is compatible with drug sensitivity.

While under observation in the hospital, these patients improved clinically after the discontinuation of chlorpromazine. In those instances where follow-up laboratory data were available, a return toward normal values was found (Table IV). The following case report serves as an illustration of the clinical and laboratory course exhibited in this iatrogenic disorder.

Patient 2 (Tables I-III). A 64 year old housewife was admitted to the Hartford Hospital on May 9, 1955 for evaluation of an anxiety reaction. She had been under observation and treatment by her physician over a period of three years for vague nervous complaints which were found to be related to a family conflict. She was quite successfully treated for a number of years.

Three weeks prior to admission the patient experienced a two day bout of fever and shaking chills followed by anorexia, nausea and one episode of vomiting. Her anorexia increased and she felt progressively worse. Two weeks prior to admission she developed jaundice with mild right upper quadrant tenderness, pruritus, light stools and dark urine.

Physical examination on admission revealed an elderly, thin, poorly nourished, very icteric female who was emotionally distraught. The liver edge was palpable three fingerbreadths below the right costal margin and was moderately tender. The spleen was not palpable.

Laboratory examination revealed the following: erythrocyte sedimentation rate 110 mm/hour, eosinophilia 9 per cent, leukocyte count 8,100/cu. mm., platelets slightly increased on smear, nonprotein nitrogen 25 mgm per cent, fasting blood sugar 101 mgm per cent, serum bilirubin 9.4 (5.4) mgm per cent, alkaline phosphatase 12.2 units, thymol turbidity 3.4 units, cephalin flocculation negative in 24 hours and one plus in 48 hours, total cholesterol of 294 mgm per cent with 64 per cent esterification, prothrombin time 50 per cent of normal, total protein 8.2 gm per cent, serum albumin 4.4 gm per cent, serum globulin 3.8 gm per cent. The patient's clinical and laboratory course are plotted in Figure 1.

Shortly after admission it was suspected that this patient might have been exposed to chlorpromazine. After diligent investigation it was finally established that she had been taking a liquid chlorpromazine preparation, one teaspoonful four times a day for two weeks prior to the onset of symptoms. She stopped her medication with the onset of the present illness.

Her illness was severe and she still had symptoms at the time of discharge on the 45th hospital day.

She was readmitted on July 27, 1956 for an anxiety reaction with somatization. Her liver was no longer palpable but she still complained of vague abdominal pain, and right upper quadrant tenderness was again elicited. Laboratory studies revealed the following: erythrocyte sedimentation rate 36 mm/hour, leukocyte count 8,600/cu. mm., eosinophilia 1 per cent, platelets normal and normal liver function tests (Figure 1). X-ray studies of the skull, chest, gall-

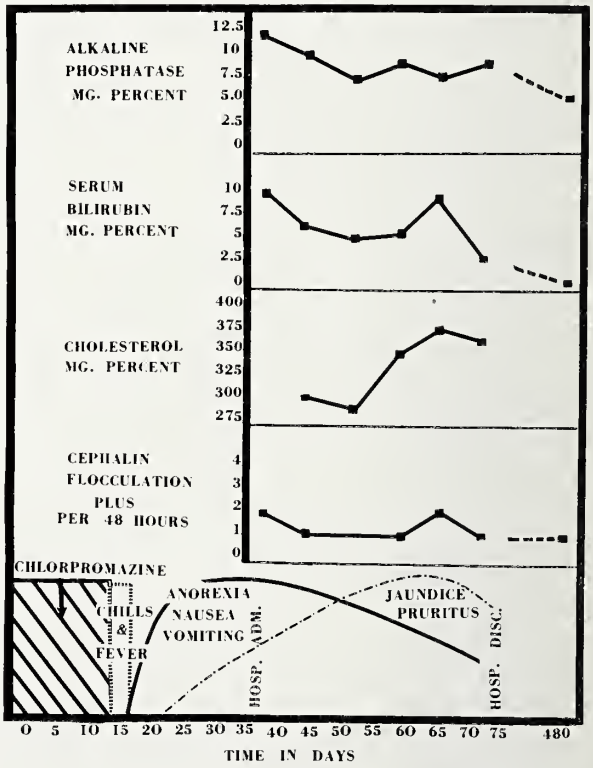

Figure 1

Patient No. 2. Clinical and Laboratory Course Following the Ingestion of Chlorpromazine.

bladder, upper gastrointestinal tract and the colon were negative. The patient was essentially well at the time of discharge.

DISCUSSION

In the present series, patients were admitted to the hospital with a variety of clinical diagnoses: e.g., viral hepatitis, infectious mononucleosis, extrahepatic biliary tract obstruction and unexplained eosinophilia. It was not until a careful history of drug ingestion was obtained that the basis for the underlying liver disorder became apparent. It is, therefore, suggested that whenever fever, chills or gastrointestinal symptoms occur in conjunction with chemical evidence of liver dysfunction, one must include the possibility of chlorpromazine as an etiological factor. Suspicion of this possibility should be routine in the investigation of any patient with obstructive jaundice and can easily be excluded by a properly directed history. If this drug was instituted during the month preceding the onset of symptoms, it should be strongly suspect as the basis of the disorder and immediately discontinued pending further investigation of the case.

In the past, hepatic dysfunction due to chlorpromazine has been described as "chlorpromazine jaundice". However, this series demonstrates that jaundice is not invariably present. In fact, 40 per cent of our series did not exhibit clinical jaundice at the time of admission to the hospital, although they were all clinically ill. More important, 25 per cent of the cases failed to show even chemical evidence of jaundice during their hospital stay. On the other hand, serum alkaline phosphatase was uniformly elevated in all patients.

Dickes, Schenker and Deutsch have demonstrated that of 28 patients with normal liver function tests before therapy with chlorpromazine, ten had evidence of bromsulphalein retention and seven had elevation of the alkaline phosphatase after treatment.[13]

The absence of jaundice in 25 per cent of patients in our series and the presence of other abnormalities of liver function as demonstrated by Dickes *et al.* suggest that a new approach must be taken to appraise realistically the incidence of the chlorpromazine hepatic sensitivity reaction.

Three laboratory observations in this series are in contrast to those of DeVore, Daugherty and Schneider.[14] Whereas these authors reported no consistent pattern of total cholesterol concentration, our studies showed the total cholesterol to be over 300 mgm per cent in thirteen of the 20 cases and over 250 mgm per cent in 16 of the series. Furthermore, when a depression of cholesterol esters was noted, it was usually associated with an elevation in the total cholesterol. Only one exception was noted in this series. These findings are in keeping with other observations in obstructive jaundice.[15]

While DeVore *et al.* noted that the direct reacting bilirubin was low in all four of their jaundiced patients, we have found that 14 of 15 chemically jaundiced patients exhibited more than 50 per cent direct reacting bilirubin (Table III).

Also at variance with the findings of the above authors was the slow return of the serum bilirubin to normal levels. Eight of 18 patients after a mean hospital stay of 21 days still showed abnormal bilirubin concentrations (Table IV).

Although none of our patients was subjected to surgical exploration, the suspicion of common duct obstruction was allayed by the clinical course and, when possible, by x-ray studies. Nine patients in the present series had normal cholecystograms. An upper gastrointestinal x-ray study demonstrated a normal duodenal loop in eight instances in which this was done. Nineteen of the 20 cases were clinically and chemically improved at the time of discharge. The one exception was a patient who eventually died of chronic nephritis with terminal uremia. Postmortem examination of the liver revealed no evidence of extrahepatic biliary tract obstruction, although there were bile plugs in the canaliculi and mild periportal cellular infiltration.

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INFARCTION OF THE TESTIS IN THE NEWBORN

Report of Two Cases and Review of the Literature with Regard to Differential from Testicular Tumor

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SUMMARY

Two cases of torsion of the spermatic cord with infarction of the testis in newborn infants are presented. These cases bring the total reported in the English literature since 1897 to thirty. In most instances the initial findings were firm, painless swellings of the scrotum which did not transilluminate. A review of eight cases of testicular tumor in the newborn revealed that these also are manifested by firm, painless scrotal swellings which do not transilluminate. For this reason, and because in no case of torsion in the newborn has the testis been saved, surgical exploration and orchiectomy is advised whenever the diagnosis of torsion or infarction of the testis is suspected.

Infarction of the testis in the newborn is a rare condition. Pinto and Kiefer[1] were able to find only 26 cases in the English literature since 1897 and added two of their own. Two recent cases at this hospital illustrate the problem of differential diagnosis.

CASE 1

Baby S. was born in the Hartford Hospital on July 12, 1954 by midforceps delivery after a normal, full term pregnancy. The birth weight was 9 pounds 8 ounces. Routine examination on July 13 is recorded as showing no abnormalities. On the next day, two days after birth, a repeat examina-

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tion showed a "firm, smooth mass in the right scrotum". This mass measured 1.5 x 1.5 cm., did not transilluminate, and was not painful or tender. During the next two days it increased in size and orchiectomy was performed on July 16. The gross appearance at operation was that of torsion of the cord with testicular infarction. The pathologic report read: "Testis measuring 2.5 cm. in greatest diameter, the surface of which is brownish red, with attached cord structures which are also discolored. On cut section the tissue is gangrenous in appearance, quite firm, dark red in color (Fig. 1). Microscopic—the testis is the site of a hemorrhagic infarction. A few recognizable tubules are seen scattered among a background of red blood cells. Surrounding these hemorrhagic areas are layers of proliferating fibroblasts, granulation tissue, hemosiderin-like pigment in phagocytes, and even foci of calcification. Moderate amounts of collagen are seen in conjunction with these fibroblasts. Estimated time of infarct: at least 12 days prior to surgical removal of testis."

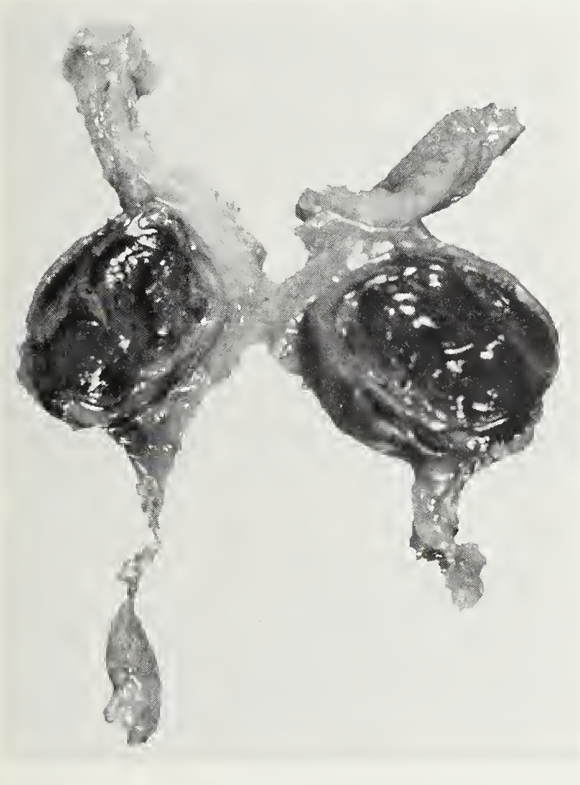

FIGURE 1
Cut section of the testis in Case 1 showing hemorrhagic appearance and twist in the spermatic cord.

CASE 2

Baby B. was born in the Hartford Hospital on July 26, 1957 to a gravida 3, para 1 mother. Labor was described as very rapid with spontaneous delivery in the ROA position. The amniotic fluid was meconium stained and the umbilical cord was wrapped loosely two times around the neck.

Examination revealed a well developed male infant weighing 8 pounds 4 ounces. The right testicle was of normal size and was surrounded by a fluctuant mass that could be transilluminated. On the left there was a firm mass. It was mobile within the scrotum and was attached to the spermatic cord. It was apparently painless and nontender. The testicle could not be isolated by palpation. The scrotum appeared somewhat discolored and the impression at the time was scrotal hematoma. The infant was discharged with the mother on the fifth day.

He was seen two weeks later at which time the scrotal discoloration had subsided, but the intrascrotal mass was persistent and possibly harder than originally. X-rays of the chest and abdomen were negative. The hemoglobin was 13.7 grams. A Friedman test of the urine was negative. The child was readmitted and orchiectomy was performed on the following day. A torsion of the spermatic cord was apparent a short distance above the testicle. The testicle as well as its appendages and coverings were twisted with the cord in the plane of the loose areolar subcutaneous scrotal tissue. The strangulated tissues were tense and discolored. Gross pathologic examination confirmed the extravaginal torsion of the cord. On cut section the testicle was found to be compressed to one side by a hematoma of the tunica (Fig. 2). Microscopic examination revealed "a large amount of red blood cells in the center of a hemorrhagic infarction. This involves the entire testis. A few recognizable tubules remain adjacent to dilated capillaries. Granulation tissue with large numbers of proliferating fibroblasts is present. A moderate amount of calcium deposition is noted and hemosiderin-like pigment is seen in phagocytes. A slight amount

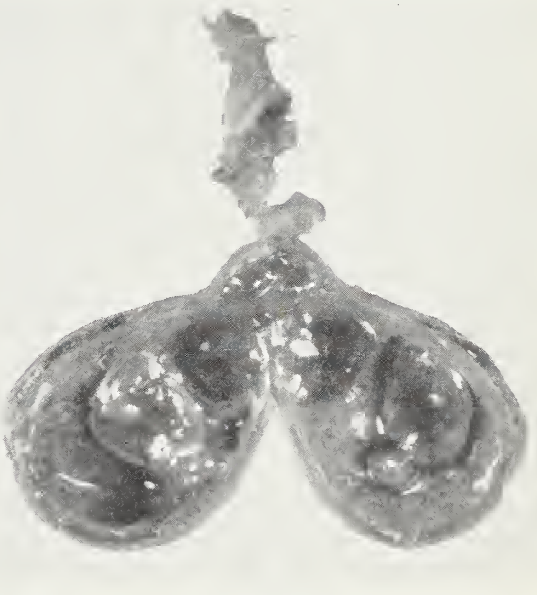

FIGURE 2
Cut section of the testis in Case 2 showing large hematoma of the tunica with compression of the testis and twist in the spermatic cord.

of collagen accompanying some of the phagocytes is present. Estimated time of infarct: at least 12 days prior to surgical removal of testis".

DISCUSSION

Seven of the 26 cases reviewed by Pinto and Kiefer[1] were considered to be idiopathic, three were associated with a strangulated inguinal hernia, and 16 showed definite torsion of the cord. They added two cases of their own, thus bringing the total to 28 cases, and concluded by advising surgical exploration in all suspected cases of infarction of the testis to rule out tumor or to untwist the torsion and possibly save the testis. Campbell[2] states that operation within four hours of the onset of torsion may save the testis. However, Biorn and Davis,[3] in one of their two cases, had pathologic evidence to suggest that the torsion had occurred during intrauterine life about two weeks before delivery, a finding supported by the evidence in one of our cases. Longino and Martin[4] presented nine cases, in seven of which the testis was left in place after exploration. They observed no complications and found subsequent complete atrophy of the testis in only one case. They thus concluded that once the diagnosis has been established, the testis should be left in place on the chance that some endocrine function might remain. Glaser and Wallis[5] presented two cases (not previously reviewed) of infarction of the testis in which operation was not performed. They justified this by saying that the testis had not been saved in any case so far reported and that the trauma of operation in a newborn was not justified. In both of their cases the testes eventually atrophied to the size of a pea. They dismissed the possibility of tumor as so rare as to be insignificant, but gave no incidence. Some authors,[6,7] on the other hand, have reported a definite increase in the subsequent development of carcinoma in atrophic testes as opposed to normal testes.

Although most authors mentioned the possibility of tumor in their differential diagnosis, they all dismissed it as rare or gave no incidence or examples from the literature. We thus attempted to review the available literature to evaluate the occurence of tumor of the testis in newborns. Julien in 1925 published a thesis reviewing 139 cases of testicular tumor in infants.[8] Of these, 25 were present at birth. Burros and Mayock[9] reported a case of adenomatoid tumor of the epididymis in a five month old infant. This had been noted at birth as a large, hard mass in the right scrotum which did not transilluminate and was not tender. They were unable to find any similar cases in the literature. Rusche[10] had twelve cases of tumor during infancy and childhood, of which four were present at birth. The pathologic diagnoses on these tumors were adult teratoma (2), dermoid cyst (1), and embryonal carcinoma (1). He concluded by stating: "A malignant neoplasm must be considered in the differential diagnosis of any intrascrotal enlargement occurring before puberty". Other individual cases of testicular tumor present at or near birth were reported by Shane,[11] Thompson,[12] and Culp, Frazier, and Butler.[13] Thompson[12] also mentioned a report published by Wilms in 1896 of 17 cases of tumor, four of which were noticed at birth. Phelan, Woolner, and Hayler,[14] in a recent review of the world literature since 1925, found 464 cases of testicular tumors in infants and children. They did not differentiate those present at birth from the ones which developed later in life. They felt that the majority of the tumors were benign.

CONCLUSION

Eight cases of testicular tumor in newborn infants have been found in the English literature with another 29 cases referred to in the foreign literature. Two of these eight cases were highly malignant, three were potentially malignant, and three were benign. The differential between torsion and tumor cannot be made on the basis of physical examination since both present as firm, painless swellings in the scrotum which do not transilluminate. It is evident that any infant with such a scrotal swelling should be explored without delay and that orchiectomy should be performed in every case. The remote possibility of retaining some endocrine function in the infarcted testis is unnecessary in the presence of one normal testis. There is the risk of postoperative infection in leaving such a good culture medium, of missing a hidden malignant tumor, or of increasing the possibility of later malignancy in an atrophic testis. The infants withstand such an operation extremely well.

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More horsepower, more bigness in design! Increasing accidents! Too little emphasis on safety measures! The auto industry is on the spot. If you don't believe it, read the following article by a nationally known woman, prominent in the advertising field.

AMERICA'S NO. 1 PUBLIC HEALTH PROBLEM

DOROTHY NOYES, *New York, N. Y.*

WHAT is America's No. 1 public health problem as seen by your doctor's official journal? Is it heart disease? Is it cancer? No, neither of these; *it is automobile accidents.*

While I am standing here speaking to you, one person will be killed in this country in a traffic smashup. I shall try to stop talking before the second fatality occurs. The odds are against it, though, for someone is killed in a car accident on an average of every thirteen minutes. During the course of my talk, some sixty others will be hurt. Forty-five of them will receive head injuries. Several will be disfigured for life. Four or five will be permanently disabled.

The Author. *Vice President and Treasurer, Noyes & Sproul, Inc., and 1957 Advertising Woman of the Year.*

I came to New Orleans by air. A friend asked, "Why don't you drive?" I knew I was four times as likely to be killed in my own car as on a scheduled airline. And please no remarks about women drivers! I'll have something to say about that later.

You run across interesting bits of information in

Presented before the 60th annual convention of Outdoor Advertising Association of America, Hotel Jung, New Orleans, La., November 11, 1957.

medical journals. Each year about six Americans die from bites of poisonous snakes. We have a greater respect for rattlesnakes, copperheads and water moccasins than for Buicks, Mercurys and De Sotos, because 40,000 of us perish in encounters with motor vehicles.

As long ago as 1953, automobiles had claimed a greater toll of dead than all the wars in which America has engaged. I wonder what General Sherman, who spoke so feelingly of war, would say about modern traffic? It is responsible for half the peacetime deaths in the Army. The leading cause of hospitalization in the Air Force is not air crashes but automobile accidents!

AUTOMOBILE DEATH TOLL

Doctors are understandably aroused over this problem. They see and treat the end results of these crashes. That is why they call it our No. 1 public health problem. Heart disease and cancer claim more lives, but lay their heaviest toll on those in later life. The automobile, when it kills, takes more *years* of life. It is the foremost cause of death between ages 15 and 24; the second leading cause between 10 and 14 and between 25 and 29; the third between 5 and 9; and the fourth leading cause of death between 30 and 39. It has taken the place of tuberculosis as a Great Killer of youth and others in the prime of life. If there is no improvement in the traffic situation, one American in five will be injured within the next thirty years. How many persons in your family will this affect? And that is not all. During the next decade or so, we are going to be building highways like mad. The number of drivers will skyrocket; and especially in those age groups that present special safety hazards, the old and the very young.

One American in seven will be over 65 by 1980. Most of these older people will be safe drivers, making up in judgment and caution what they have lost in quick motor reflexes. Let's face it, though, there will be some like Gramma. You know, the dear old lady whose family is always exclaiming, "Did Gramma have another accident?"

The trouble is that her grandchildren don't do so well either. Fourteen per cent of the drivers are under 25 but they are involved in 28 per cent of the fatal smashups, or twice their theoretical share. There are 11 million of these young drivers today, but there will be 15 million by 1965.

Driving a car takes more minute-by-minute concentration than piloting a plane. It is a full-time job, where inattention is perilous and a brief nap fatal. I am happy to break the monotony of a long stretch of road now and then by glancing at an outdoor poster panel. And I am impressed by the evidence I see of Outdoor Advertising's high sense of civic responsibility as reflected in its safety messages and its unfailing support of so many projects for the public good.

THE PHYSICALLY INCOMPETENT

The Declaration of Independence gives every American the right to pursue happiness, but it doesn't say he may do so in an automobile. We are getting away from the idea that driving a car is a vested right, though we have not yet reached the view urged by the *Journal of the American Medical Association* that it should be "a sought-after privilege." Much remains to be done through a tightening of licensing procedures and periodic physical re-examination, especially of those whose age or condition might make them poor driving risks. Meanwhile the medical profession is alerting its own members to bring their influence to bear on patients who should voluntarily disqualify themselves from driving—for their own sake and the safety of others.

It is easy to measure a driving hazard like failing eyesight, and harder to estimate the chances of a sudden heart attack. Hardest of all perhaps is the discovery of emotional factors that make for dangerous driving. Some people are full of concealed hostility which results in aggressive, competitive driving. They act out their problems on other cars, as the psychiatrists say. Dr. Karl A. Menninger has observed that there are even drivers with self-destructive tendencies of which they are unaware. At the other end of the emotional spectrum is the man who has just become a father. He is walking on air. Nothing can touch him—or so he imagines all too often as he climbs into his car.

There are also the "accident-prone." Carefully controlled studies show that, taken as a group, accident repeaters are more apt to be impulsive and resentful of authority than accident-free drivers. A surprisingly large number are between the ages of

19 and 24, with unresolved emotional conflicts, feelings of inferiority and guilt, and immature living habits. As the psychiatrist, Dr. W. A. Tillman, says, "A man drives as he lives."

WOMEN DRIVERS AND TRUCKDRIVERS

A quick, simple way to prevent most automobile accidents would be to limit licenses to women drivers and truckdrivers. Such action would bring America's No. 1 public health problem under immediate control, for these two groups show especially low accident rates.

Yes, I have seen inept women drivers too. No one of either sex who is lacking in basic driving skills ought to be in the driver's seat except in an instruction car equipped with dual controls. But say what you please, women have fewer accidents. If a man drives as he lives, so does a woman. She has other ways to attain her ends than by motor aggression. She is a mother, not a warrior; a preserver of life, not a destroyer.

The favorable record of women drivers is somewhat baffling to students of traffic fatalities, who, incidentally, are mostly men. Only the truckdriver is in her class, and he is pretty special too, if you except a few who do not really work at the trade. Though something like 10 million of the 65 million motor vehicles are trucks, they are chargeable with less than four per cent of the fatalities and less than one per cent of the injuries.

Truckdrivers, as you know, are a picked lot. Those who are in interestate commerce are re-examined every thirty-six months for signs of unfitness to drive. I should include bus drivers in this song of praise because they have an especially fine record. You are ten to twenty times as safe in a bus as in your own car.

The Harvard School of Public Health made personality studies of truckdrivers with outstanding safety records. These champions have an average I.Q. of 112, meaning they are of high normal or superior intelligence. Even more significant than intelligence, perhaps, was the fact that these men rank high in self control. They are described as sympathetic, unselfish, cordial, quiet, and submissive. A submissive truckdriver may be hard to imagine, but that is what the study shows, and you cannot scoff at science, not when it can make dogs go around the world in 105 minutes.

IMPROVED HIGHWAYS

So far we have been talking mostly about drivers. There is the road to consider as well. Much has been done—and much remains to be done—to reduce accidents by providing limited-access highways, multiple lanes broad enough to compensate for small errors in judging distance at night, more one-way streets, improved illumination, better city and suburban planning, and more trained traffic engineers.

The driver and the road—is that the whole picture? Until recently it seemed as if it were. Strictly enforced speed limits would cut the death toll, but what could be done about the large number of smashups that take place at 40 miles per hour or less? One-way traffic made parkways and city streets safer, but how about rural areas where so many accidents occur?

The situation was like that in pneumonia before penicillin was discovered. You avoided exposure and wet feet, and if that did not help, you prayed that the Lord and the family doctor would pull you through in a couple of weeks. Or polio before the Salk vaccine—you tried to keep the children away from crowds during the epidemic season; you urged them to avoid fatigue; and then you hoped for the best. In other words, you dealt with the environment and the host, as doctors would say, "host" meaning the person who gets the disease. Not much else could be done until it was possible to attack the agent, in this case the polio virus.

Recently doctors began realizing that automobile accidents are very much like an endemic disease. As a public health problem, they conform to the same biologic laws as do disease processes. They can be prevented by similar measures.

The host in this case is the driver and his passengers. They are the ones who catch the disease, that is, are injured. The environment is the road, the weather and the lighting. And the agent is the automobile itself. To control a disease, it is not enough to work on the host and the environment. You must modify the agent too.

This new medical insight into the nature of America's No. 1 public health problem promises to be comparable to the discovery of the antibiotics in the treatment of infectious diseases. Enough has already been learned about the relationship of the automobile to the driver and the environment to bring about major inroads on the disease as fast as this new knowledge can be put to use. Paul W. Kearney sums it up this way: "The driver's behavior may cause accidents, but interior design causes injuries and deaths."

SAFETY EQUIPMENT

New safety features, such as door locks and padding of instrument panels, began appearing in the 1956 car models, and enough of them have been in smashups to permit comparisons with cars of earlier vintage. With the cooperation of medical societies, state highway departments and police officials in many states, an Automotive Crash Injury Research group at Cornell University Medical School is tabulating on IBM cards details about thousands of accidents. A preliminary box score for the 1956 models shows a reduction of 29 per cent in injuries ranging from dangerous to fatal. Much of the improvement is credited to the lessened chance that the doors will open and the occupants be thrown from the car. For when this happens, those ejected are five times as likely to receive a dangerous to fatal injury as are those who stay inside.

Ideas for safer automobile design owe much to the packaging industry, which knows how to ship eggs and television sets to their destination intact. Unless eggs are cushioned they smash when the container comes to a sudden halt, and of course that is what happens to passengers in a car. They are thrown forward in the automobile package, where they strike objects that bend less easily than flesh and bone. The Cornell studies have shown that major causes of injury, besides ejection, are the steering assembly, the instrument panel, and the windshield. Materials that absorb energy more readily than human tissue will soften the impact of a collision. You undoubtedly know that an experimental car has been built that will keep the occupants safe from harm even if it crashes into a stone wall at 50 miles per hour.

The use of safety belts in automobiles is urged by the American College of Surgeons and by increasing numbers of doctors everywhere. "You must stay in your seat in a crash if you care to survive," says Dr. Horace E. Campbell in the current issue of the *Rocky Mountain Medical Journal*. Safety belts offer double protection: against ejection and against striking unyielding objects inside the car, like the windshield, which cannot easily be padded. A committee of the American Medical Association has estimated that safety belts can reduce crash injuries by two-thirds. This closely approximates the early findings at Cornell, showing that injuries were 60 per cent less frequent among passengers wearing safety belts.

One's first reaction to safety belts is, "Will people wear them?" Probably not at first. It will take an educational campaign and the force of example. The experience of twenty states where belts are provided in cars driven by state employees is hopeful. Use of the belts increases, it is found, as news gets around of some fellow employee whose life was saved. I imagine many people will react the same way when they read stories of this kind in their home-town paper about people they know. Industry faced a similar problem in getting employees in certain occupations to wear safety glasses — and licked it.

This new approach, that of reducing injuries and deaths from automobile accidents by modifying the car design, brings the automobile industry into the picture as a major factor. It is placed in a position similar to that of the industry with which we work, the pharmaceutical industry. The automobile industry is actually not unlike the maker of a very useful but potentially dangerous drug.

This places a heavy responsibility on the pharmaceutical manufacturer. The possibly harmful effects of his product are known as side effects. No new drug is released for use until its safety and possible side effects have been tested, first with laboratory animals and then by extensive clinical research. The manufacturer spends large sums of money preparing informational material for the medical profession on the proper use of the drug. He warns of any known side effects. If the drug is unsafe in certain conditions, he displays these contraindications as prominently as the things it is good for. The antihistamines for relieving hay fever produce drowsiness in some patients. The pharmaceutical industry has lent full support to the medical profession in an educational campaign warning patients against driving until their reaction to the drug has been established.

Every maker of pharmaceuticals strives constantly to increase the safety of his products and reduce their side effects; if he did not, some competitor would get the jump on him. One leading manufacturer developed an antibiotic that saved thousands of lives around the world. But when half a dozen people died of blood disorders after prolonged use of the drug, and this was reported in the medical journals, the manufacturer took quite a beating. You could buy stock in his company at bargain prices for a long while. The drug in question remains better than anything else for certain infections, but it is promoted only with the most explicit warnings regarding the precautionary laboratory tests that should accompany its extended administration.

I do not suppose things will come to a pass where an automobile manufacturer is on a spot like that when six people are killed in one of his cars. But I do think that public opinion will judge the industry by far more exacting standards now that automobile accidents are coming to be recognized as a public health problem. It will be felt, I believe, that the *privilege* of making and selling automobiles carries with it an *obligation* to be tireless in improving their safety, in encouraging their proper use, and in refraining from promoting those qualities which make automobiles potentially so dangerous.

The dynamic automobile industry conditions our whole way of life. It is a basic factor in our going economy. Ford and Chrysler are supporting the tremendously important Automotive Crash Research Program at Cornell to the tune of $200,000 each. The start made by the industry in designing cars for greater safety is encouraging, and so is the decision, announced by the Automobile Manufacturers' Association this past summer, to eliminate references to excessive rates of speed from advertising copy.

EMPHASIS ON SPEED

Still, if I may offer a constructive criticism, I am disappointed in the announcements about the 1958 models. There seems to be a tendency to *play down* the important safety factor and to *play up* to the immature child in all of us by over-emphasizing horsepower and sheer bigness. Dr. John M. Dorsey of the Wayne State University College of Medicine points out that, to the young American male, readiness to drive a car is regarded as a maturity test, such as carrying a gun was to his ancestors. He comes to regard the car almost as an extension of his own body and says, "I need tuning up" or "I need new spark plugs." The car is a symbol of his powers of manhood. It is something with which he can act out his phantasies.

Is it safe, from a public health point of view, to promote cars at this infantile level? S. I. Hayakawa compares the emotionally immature driver in his Plymouth Fury to a seven year old in his space helmet. It is all right for the seven year old to live in a world of phantasy. However, to encourage an adolescent who has not yet harnessed his destructive impulses to find an outlet behind the wheel of a 300 horsepower car is another matter.

Automobiles are not my business, and I suppose I am speaking out of turn, but it seems to me that a smart manufacturer, taking the long view, would sell safety to the women who control 60 per cent of all personal expenditures and influence most car-buying decisions. Witness the popularity of books on how to keep from being a widow.

Also I should think the car maker would try to get the doctors on his side (perhaps as pharmaceutical manufacturers do) by sending out detail-men and professional literature to acquaint physicians with the safety of his product. If he read the medical journals as much as I have to, I think he would realize that a tremendous dividend of good will awaits the first manufacturer who really goes to town on a product that will protect his patients from the most dangerous disease they face.

At present the Harvard School of Public Health points out in its recent report on "Human Variables in Motor Vehicle Accidents" that all too little is known about the factors which influence the behavior of drivers. Finding out more about how safety habits are acquired and reinforced will be an important part of the great campaign to conquer America's No. 1 public health problem. Such information will be useful intelligence for the front on which Outdoor Advertising is fighting.

People do not always do things for the reasons we might imagine they would, as you know. The influence of fear as a deterrent seems to have been overrated to judge by the comeback of cigarette sales after the lung cancer scare. Though I am a southerner by birth, my home state is Connecticut. We learned that the fear of sudden death failed to curb automobile accidents. Now we lose our driver's license for 30 days for the first speeding conviction —and fatalities are down 14 per cent. Governor

Ribicoff says, "If people won't slow down to save their *lives,* they will to save their *licenses.*"

As safety belts become standard equipment, I would venture the hunch that Outdoor Advertising can do a lot to win their acceptance by an ever widening public. Perhaps movie stars and test pilots will be shown wearing them. I do not know; it is another problem in motivational research.

America is calling on the automobile industry for leadership in a public health problem that is destined to be solved in one way or another. The American Medical Association through its Committee on Automobile Crash Injuries and Deaths, has issued a call for the establishment of a foundation to study all phases of the problem and to be financed primarily by the automobile and related industries. A real danger is that the automobile industry may do too little and may do it too late. At recent congressional hearings, representatives of the industry were questioned about safety belts. They replied that the belts were a good thing but needed the backing of an educational campaign which, they felt, it was up to someone else to pay for. This attitude of letting George do it is not one that the drug industry can embrace. In the long run I don't believe any industry selling a potentially dangerous product will find that it works. In this connection, I note that the National Safety Council among its 33 trustees has but one automobile man and among its 44 directors only one. Both are General Motors executives. Yet motor vehicles account for 42 per cent of all fatal accidents. Couldn't an industry which spends so much to sell automobiles spend more to make them safe? Couldn't the Ford Foundation, with its resources garnered from the industry, take the lead in an all-out crash program to end crashes?

I make these suggestions because some fifty years ago the drug industry let itself drift into a situation like that now confronting the automobile industry. The result of doing too little too late was government policing through the Food and Drug Administration. The controls are irksome at times but I don't know any drug manufacturer who would want to go back to conditions as they were half a century ago.

The automobile industry is in the fortunate position of having an opportunity and the freedom to police itself. But time is slipping by and storm clouds are gathering. Various bills have been introduced in Congress to make the installation of safety equipment mandatory. Dr. Fletcher D. Woodward, chairman of the American Medical Association's Committee on Automobile Crash Injuries and Deaths, remarked recently that "the automobile industry should clean its own house. Otherwise a federal agency will be set up to establish and require all manufacturers to meet certain minimum safety requirements." Coming from a source that feels as doctors do about socialized medicine, that is a strong statement indeed. It is borne out by the increasing space the medical journals are giving to the problem. Hardly a day passes without a new article on the subject crossing my desk.

Do you remember how public opinion in America has demanded action against one public health problem after another—typhoid fever, tuberculosis, polio, and now cancer, heart disease and mental health? Automobile accidents are moving into target position, and all signs point to a rising and irresistible demand for effective and thoroughgoing action for the conquest of America's No. 1 public health problem. If I were an automobile manufacturer, I would be on the anxious seat. And I would hop off and climb onto the bandwagon.

166th ANNUAL MEETING
of the
CONNECTICUT STATE MEDICAL SOCIETY

Stratford High School
North Parade Street, Stratford, Connecticut

April 29, 30, May 1, 1958

PROGRAM COMMITTEE

ARTHUR EBBERT, JR., *New Haven, Chairman*
WILLIAM J. LAHEY, *Hartford*
DAVID T. MONAHAN, *Bridgeport*

LOCAL COMMITTEE ON ARRANGEMENTS

EDWIN R. CONNORS, *Bridgeport, Chairman*
DANIEL C. BARKER, *Fairfield*
STUART L. JOSLIN, *Fairfield*
NATHAN H. FRIEDMAN, *Stratford*
MR. ARNOLD P. OLSON, *Bridgeport*
ALAN R. SMALL, *Bridgeport*

PRELIMINARY PROGRAM

Tuesday April 29

MUSIC ROOM

Annual Meeting of the House of Delegates

COLE B. GIBSON, *Meriden, Speaker of the House, presiding*

10:00 CALL TO ORDER
BUSINESS SESSION

1:00 LUNCHEON FOR OFFICERS, MEMBERS OF THE HOUSE AND GUESTS

2:00 RESUMPTION OF BUSINESS

7:00 ANNUAL DINNER OF THE COUNCIL

Wednesday, April 30

9:00 REGISTRATION—EXHIBIT HALL

AUDITORIUM

9:15 CALL TO ORDER—W. Bradford Walker, Cornwall, President of the Society
ADDRESS OF WELCOME—President, Fairfield County Medical Association
W. BRADFORD WALKER, *Cornwall, presiding*

9:45 REHABILITATION OF THE PATIENT WITH CORONARY ARTERY DISEASE
Lewis H. Bronstein, *New York, New York*

10:25 REACTIONS DUE TO DRUG IDIOSYNCRACY
Robert P. McCombs, *Boston, Massachusetts*

11:05 INTERMISSION TO VISIT TECHNICAL EXHIBITS
ARTHUR EBBERT, JR., *New Haven, presiding*

11:20 CURRENT STATUS OF ANTI-HYPERTENSIVE DRUGS
William Hollander, *Boston, Massachusetts*

12:00 SPACE MEDICINE
Wilford F. Hall, *Brigadier General, USAF(MC), Wright-Patterson Air Force Base, Ohio*

1:00 LUNCHEON—Cafeteria of the High School
VISIT TO TECHNICAL EXHIBITS

2:00 PANEL ON ADOPTIONS
T. STEWART HAMILTON, *Hartford, presiding*

EXPLANATION OF THE CONNECTICUT LAW AND PLACEMENT PROCEDURE
John P. Bachman, *Hartford, Medical Director, State Welfare Department*
Mrs. Edith Valet Cook, *New Haven, Director, Connecticut Child Welfare Association*

Discussion
Donald J. McCrann, *Hartford, Obstetrician*
Edward T. Wakeman, *New Haven, Pediatrician*
Robert R. Keeney, Jr., *Manchester, General Practitioner*

Questions from the Floor

Summary—Chairman

NOTE: Physicians and representatives of child placement agencies and other interested persons are invited to attend.

Meetings of Sections of the Society and Guest Organizations

3:30 Section on Dermatology and Syphilology
Section on Gastroenterology
Section on Proctology
Connecticut Chapter of National Association of Social Workers
Connecticut Occupational Therapy Association
Connecticut Regional Group, Medical Library Association
Hezekiah Beardsley Pediatric Club

7:00 **Annual Dinner of the Society—Stratfield Hotel, Bridgeport**
THE ROLE OF THE FEDERAL GOVERNMENT IN THE FIELD OF MEDICAL CARE
Aims C. McGuinness, *Washington, D. C., Special Assistant for Health and Medical Affairs to the Secretary of Health, Education, and Welfare*

Thursday, May 1

9:00 Registration—Exhibit Hall

Auditorium

9:15 Film—The Doctor Defendant
(Courtesy Wm. S. Merrell Company, Cincinnati, Ohio)
David T. Monahan, *Bridgeport, presiding*

10:00 Staphylococci and the Use of Antibiotics
Wesley W. Spink, *Minneapolis, Minnesota*

10:40 Spontaneous Regression of Malignancy
Tilden C. Everson, *Chicago, Illinois*

11:20 Intermission to Visit Technical Exhibits
William J. Lahey, *Hartford, presiding*

11:35 Some Uses of Isotopes in Medicine
Solomon A. Berson, *Bronx, New York*

12:15 Speaker to be announced

1:00 Luncheon—Cafeteria of the High School
Visit to Technical Exhibits

PROGRAM ARRANGED BY THE CONNECTICUT SOCIETY OF AMERICAN BOARD SURGEONS

President: Bliss B. Clark, *New Britain* *Secretary:* Eugene J. Fitzpatrick, *New Haven*

Program Chairman: Mark A. Hayes, *New Haven*

2:00 Thyroid Disease in Children
Robert W. Buxton, *Baltimore, Maryland*

3:15 Report on the World Medical Association

MEETINGS OF SECTIONS OF THE SOCIETY AND GUEST ORGANIZATIONS

3:30 Section on Anesthesia
Eye, Ear, Nose & Throat Section
Section on Orthopedics } Joint Meeting
Connecticut Chapter-American Physical Therapy Association } Joint Meeting
Section on Physical Medicine } Joint Meeting
Connecticut Occupational Therapy Association } Joint Meeting
Connecticut Society of Pathologists
Connecticut District Branch of the American Psychiatric Association
Section on Radiology
Association of Medical Examiners of Connecticut
Connecticut Allergy Society
Connecticut Diabetes Association
Connecticut Society of American Board Obstetricians and Gynecologists
Section on Obstetrics and Gynecology

CONNECTICUT STATE MEDICAL JOURNAL

Owned and Published Monthly by The Connecticut State Medical Society

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Mark A. Hayes, *New Haven*
William H. Horton, *Windsor*
Samuel D. Kushlan, *New Haven*
Hugh J. Caven, *Hartford*
Marshall Pease, *Ridgefield*
Clair Rankin, *Hartford*
H. M. Marvin, *New Haven*
Michael S. Shea, *New Haven*
Mark Thumin, *Middletown*

NEWS EDITORS

Fairfield: Executive Secretary, *Bridgeport*
Hartford: Executive Secretary, *Hartford*
Litchfield: I. S. Goldberg, *Torrington*
Middlesex: Mark Thumin, *Middletown*
New Haven: Morris Coshak, *Waterbury*
New London: Clifford Wilson, *Norwich*
Tolland: Ralph B. Thayer, *Somers*
Windham: F. A. Beardsley, *Willimantic*

EDITORIALS

Medicine and the Satellite Explorer

The President's Committee on Scientists and Engineers has been selected to study the needs of our nation's educational program in the light of a changing world. For the purpose of crystallizing the ideas of our scientific leaders Yale University recently served as host to a conference on "America's Human Resources To Meet the Scientific Challenge." Almost 200 top scientists were on hand. Medicine was not invited but medicine came and was received along with representatives of the press.

Out of this conference certain facts became evident. Our secondary school education program is falling far short in failing to encourage and properly prepare the talented student to continue his studies through college. Our colleges and universities are handicapped by lack of funds to sufficiently recompense their faculty members. Our university graduates find little incentive for productive research due to two things, a failure on the part of the universities to provide a decent living and a failure to provide a teaching position whereby knowledge may be imparted by teacher to student. A liberal education was emphasized at the conference and as a part of this a wider understanding of science since science today is a necessary component of any program of education which is liberal.

Medicine was singled out by Dr. James A. Killian, Jr., special assistant to the President for science and technology. He emphasized the fact that we must achieve a national effort in behalf of schools of science and technology comparable to the much needed mobilization of national understanding and effort which has taken place on behalf of medical education. It may be that medicine's success in raising its standards of education is due to its unselfish purpose to serve mankind. Both Sherman Adams and Dartmouth's president John S. Dickey recently pointed out that what is fundamental in our educational program is its purpose. To make this program effective the purpose must be directed aright. We are not (or should not be) in a technological race with Russia. Our primary aim should not be to conquer space. What we should strive for is an increase of knowledge which may be utilized wisely in the cause of human, rather than technical, advancement.

California Institute of Technology has been a very important factor in producing Explorer. Its president, Dr. Lee DuBridge, laid the cold facts strictly on the line when he told the university representatives that their first duty is to raise the salaries of their faculties to twice their present level; their next duty is to accept for college or university enrollment only those students properly prepared. He then addressed his closing remarks to Mr. John Q. Citizen in these words: "So far local and state taxes and gifts have not been enough. So now Uncle Sam is about to come along and lift a few more dollars from your purse to help out. But if you run home and quickly vote for a higher school tax and send twice as much to alma mater next year you can keep Uncle Sam from getting into the education business any deeper."

Like the practice of medicine, the business of education should be kept free. As citizens the physicians have a vested interest in America's education program. Our purpose remains, a free people in a free world.

Welfare Bills To Be Simplified

To the practicing physician, the federal, state or local bureau which regulates payment for professional services to indigent persons often appears as an ogre who lives on large sheaves of reports and dispenses meager compensation to those who provide this tribute. It is good to have one of the medical personnel of our own State Bureau of Welfare materialize as Dr. Bachman does in his letter which is reprinted elsewhere in this issue so that we may appreciate that we have in this Department medical direction which is cognizant of the problems of the practicing physician and sympathetic to his interest.

It is refreshing to hear that plans are on foot to simplify rather than further complicate the present procedure of certifying medical care for wards of the State. In the meantime it is hoped that all of our physicians will be mindful of their obligation to cooperate with present approved practices for the benefit of their patients if not for themselves. The attention to detail which is required, particularly in the matter of coding the diagnosis, not only contributes to the keeping of more accurate records, but also immeasurably to holding down the cost to the State of providing these services by reducing office procedure to a minimum.

The Philosophy of Fund Raising Campaigns

There is an increasing effort on the part of certain groups in American communities to try to limit fund raising drives on the grounds that there are too many campaigns and they are becoming a nuisance. Interestingly, if one were to say that there are too many insurance companies, all selling essentially the same item; too many makes of automobiles, all much alike and with overlapping price ranges; too many banks, all handling the same commodity at the same rate; or too many cigarettes, all mild, the very persons who now proclaim the need to centralize and control charitable giving would probably be the first to demand freedom of choice.

The proposal for all-inclusive Federated Fund Raising is being actively promoted throughout the nation with little or no realization that the financing of Community Chest agencies is quite a different thing from meeting the objectives of national health agencies, whose programs require an integrated approach at national, state and local levels. Community Chests work well for local agencies whose need for support can be determined locally; for these a real saving in time and expense can be accomplished by a consolidated drive. But the promoters of the federation idea are using pressure tactics to include the national voluntary health agencies in this plan. Upon learning that nationwide opinion is strongly opposed to participation in United Fund campaigns, resulting from national conferences of many of the voluntary health agencies, they are currently trying to secure endorsement of their philosophy by medical societies. Without the active participation of physicians the voluntary health agency movement in this country would rapidly die.

This year the Ohio State Medical Society endorsed a proposal for a National Research Fund, to be supported by Community Chests and United Funds. They attempted to bring this subject before the Annual Meeting of the American Medical Association. Dr. Edgar V. Allen, of the Mayo Clinic, a long-time member of the House of Delegates of the American Medical Association, spoke against the resolution of the Ohio State Medical Society. Dr. Allen's remarks are worthwhile reading for all physicians. Copies of his statement may be obtained from your local Heart Association.

In Connecticut we know that not only the Heart Association, but also the Cancer Society, the Tuberculosis Association, the Society for Crippled Children and Adults, and other health agencies support the philosophy which Dr. Allen expressed. In referring to the annual moment of silence in tribute to AMA members who have died, Dr. Allen suggested, "It would be much better if, in addition, each of us spent a day or a week annually in support of the national voluntary health agencies." He referred to the fact that if voluntary support of medical research was not forthcoming, the federal government would have to step in to fill the gap, and stated, "Our House of Delegates has persistently and wisely supported the concept that we want less federal participation, rather than more. Are we then to abandon a principle which we have enunciated on numerous occasions?"

Referring to the claim that fund raising drives are an annoyance, he asks, "Does a physician lock the door of his office because some patients annoy him? Would you destroy a highway because you are annoyed by the heavy traffic?"

Under American democracy the voluntary health agency movement has grown far more extensively than in any other country in the world. Foreign visitors are still amazed at the way Americans attack health problems voluntarily for the good of the whole community. This has played a vital part in the tremendous advances which have been made in the health of our people. This development stands as a real monument to the American way of life, under which, when a problem is presented, citizens band together to overcome it. In this connection, Dr. Allen has stated, "I lament that I cannot give to all appeals, but in keeping with the American way of life, I can decide to which organizations I shall contribute. . . . In the years in which I have been in the House of Delegates of the American Medical Association I have often heard the words 'liberty' and 'free choice of physicians'. Can our body support the concept of free choice of physician and deny free choice of giving?"

As physicians, we must maintain the right of each individual to participate or not to participate in community activities of voluntary health agencies in accordance with his own wishes and desires. We cannot, even by implication, deny the right of any member physician to support or not to support an agency of his choice. As citizens whose opinions are respected, we should not condone the denial of similar rights to our fellow citizens. On the contrary, American physicians, in keeping with their best traditions, may be expected to welcome and give increasing support to soundly conceived and well managed voluntary health agencies.

Highway Safety

In the final issue of the *Journal* for 1957 there appeared an article by an associate professor at the Harvard School of Public Health calling attention to the role which the physician can play in accident prevention on our highways. The editor in that same issue pointed out the fact that, although safety in motor vehicle travel has actually increased, the cost of accidents today represents an appalling figure.

Connecticut physicians have evidenced their interest in the highway accident problem by their cooperation in the Cornell Automotive Crash Injury Research Project where it was found that safety in car design and equipment has grown to assume major importance. In this issue we remind our readers once again of this problem of automobile accidents. This time the author, Dorothy Noyes, is a member of one of our leading advertising firms. She speaks on "America's No. 1 Public Health Problem" and attributes her interest in this subject in part to the leading editorial in one of the issues of the *Journal of the American Medical Association*. The emphasis on faster and bigger automobiles disturbs her as it does us. Placing governors on motors has been suggested but seems too impracticable. Improved highways, elimination of the unfit driver and the accident repeater, more safety equipment in our cars, and finally the developing in every driver a sense of responsibility and an attitude of courtesy—these are some of the important factors entering into America's No. 1 public health problem.

The Scientific Method

Recently there appeared in "Science" magazine an editorial entitled "Is There A Scientific Method?" Although the question was not definitely answered, the author implied that there was such a method and that its essence was the appropriate selection and careful testing of the variables which might be involved in any investigative situation. This question is of some importance today when we are being confronted with statements that education in science in this country is deficient in both quantity and quality. The answer is perhaps not as simple as indicated above.

To apply the adjective "scientific" to a particular method of investigation implies that other methods are nonscientific or perhaps unscientific. To make this distinction, we must then know whether this description means that the method was developed by scientists or whether it is a method that was particularly developed for investigative use in the fields of science, or whether it is a method purely applicable to the natural and physical sciences, or all three.

If the philosopher, and by extension the theologian, is not a scientist, then it cannot be said that the methods of investigation which have been used in science were solely the invention of scientists. They are founded upon logic, whose principles were first elucidated by the philosophers. The close relationship between philosophy and natural science is indicated by many historical instances. The professor of medicine in Europe of the Renaissance had indeed the title of "Doctor of Physic" which encompassed all forms of natural philosophy.

Certain criteria for carrying out investigations in order to assure the validity of the results obtained are now generally accepted. The inquiry should be limited in its scope but should cover in a comprehensive fashion the subject to be explored. It should be systematic in nature and have a reasonable time limit set upon it. The method employed must be reproducible and should, if possible, provide a basis for further or future investigation. It should draw upon experience previously obtained and may establish new experience by making a test or trial under controlled conditions, i.e., an experiment. The adoption of these criteria as bases for investigative methods was greatly accelerated and gained wider acceptance by their application to problems in the field of science. The development of these methods, however, owes a great deal to nonscientists since they have been found broadly applicable to all fields of investigation.

The Oxford dictionary defines "scientific method" as "based upon or regulated by science as opposed to mere traditional rules or empirical dexterity." Since the tendency of modern education is to be more heuristic, there is a need to emphasize the importance of correct methods of study, particularly if it implies a superiority of one to the other because it may employ the tools or jargon of science. This would be in essence "scientism."

What is required is the recognition that investigation is an art as well as a science in itself. The greatest discoveries have depended as much on that sort of informed and inspired thinking which we call intuition, and even on the happy faculty of serendipity as well as the most careful and meticulous planning and observation. One approach does not exclude but rather complements the other. The method still requires the individual who will carry it out. He must be endowed with patience and perserverance as well as wisdom for, as Kettering has remarked, the inventor must become inured to failure. What was science three hundred years ago is nonsense today. The logical basis of correct investigative methods and man's initiative in pursuing them are as eternal as life itself.

Medicine and Sports

The American Medical Association is encouraging county medical societies to sponsor, in cooperation with county coaches associations, annual sports injuries clinics. It was very gratifying, therefore, to hear of a specific letter of commendation sent to a physician by the coaching staff of a high school in Brooklyn, N. Y. The letter expressed appreciation to the physician for time given "beyond the compensation he has received for it." In recognition of his services this physician was presented with a trophy at the school's football dinner.

On January 23, 1958 Donald P. Bullis succumbed to that tragic disease, multiple myeloma. Don Bullis was not a physician but the physicians of Connecticut owe much to him for his devotion to the production of an attractive *Journal* during the past 17 years.

In March, 1941 the first issue of the *Journal* to appear from the presses of Whaples-Bullis Company in New Haven reached the members of the State Medical Society. From that day on Don Bullis never ceased to contribute his knowledge, artistic ability, and good judgment to the improvement of our publication. To him is due in large measure the enviable position which the *Journal* holds today among the other 36 state medical journals.

Following his graduation from Hopkins Grammar School as valedictorian of his class, through his college years at Rensselaer Polytechnic Institute and his later years in the New Haven community Don Bullis gave evidence of his qualities for leadership. Of particular interest to us is the fact that in college he was editor in chief of *The Renssalaer Polytechnic.*

PROGRESS IN CLINICAL MEDICINE

PRESENT TRENDS IN TREATMENT OF DETACHMENT OF THE RETINA

J. Alexander Van Heuven, m.d., *New Haven*

This is the third of a series of papers to acquaint medical colleagues of ophthalmologists with recent advances in the care of the eyes. These discussions should be of interest to the profession as a whole. They are intended to be brief and are written in such a manner as to be understood by the general practitioner, pediatrician, internist, surgeon or psychiatrist. Many of these are problems which the medical doctor must try to consider in formal or informal consultation for patients and often for members of his own family.

Few fields have undergone so many changes and have advanced so rapidly during the last decades as the treatment of detachment of the retina.

Although he had been advocating his method for some years, it was only at the International Congress of Ophthalmology at Amsterdam in 1929 that Gonin received recognition. Gonin made the statement that detachment of the retina was caused by a tear in the retina and that closure of the tear brought healing. His passionate presentation of this new conception was the highlight of the Congress and will be remembered by all who were present. The following decades have proved that his statements were as true then as they still are today. Thus, we have learned (1) to examine the patient until we find the tear in the retina, and (2) to seal the tear. The techniques for accomplishing these two steps have changed.

We still have to find the tear first. This is sometimes located in the area of detachment, sometimes far removed from it. Physical forces, including gravity, may, for example, show a large detachment below although caused by a tear above. To understand this we must consider that the detachment starts out around the tear. But when the tear is above and the patient in an erect position the major part of the day, the fluid behind the detached retina will gradually come down. In so doing the retina is loosened more and more downwards, while it flattens out again above. In three weeks time the detached area may be below and the tear causing it, still above. In finding a detachment below, therefore, we may expect the tear to be below when the detachment is very recent, but it may be either below or above in a detachment of some weeks standing.

The Author. *Attending Ophthalmologist, Grace-New Haven Community Hospital, Hospital of St. Raphael, Woodruff Memorial Center, New Haven; Consulting Ophthalmologist, West Haven Veterans Administration Hospital, Milford Hospital; Assistant Clinical Professor of Ophthalmology, Yale University School of Medicine*

SUMMARY

The premise still holds that detachment of the retina is caused by a tear in the retina and healing is produced by repair of this tear. The tear is not easily found. Indirect ophthalmoscopy plus an impression of the sclera are the best means of detecting the tear. Procedures are employed to bring the sclera and choroid closer to the detached retina.

Preoperative and postoperative treatment have both changed, as well as the method of promoting contact between the detached retina and the underlying layers where simple diathermy will not suffice.

Frequently this tear is located at the extreme periphery of the retina. The periphery of the retina is poorly accessible for examination by the method of direct ophthalmoscopy. Unfortunately generations of American ophthalmologists have been brought up exclusively with direct ophthalmoscopy. For good detachment work indirect ophthalmoscopy is essential. The difference between direct and indirect ophthalmoscopy is that in direct ophthalmoscopy an erect image of the fundus is seen under a magnification of sixteen times; in indirect ophthalmoscopy, an inverted image is seen four times magnified. But in indirect ophthalmoscopy we cover a much wider area. Moreover, movement of the lens, held in between ophthalmoscope and eye of the patient, allows one to move that area.

Since even with indirect ophthalmoscopy we cannot see the extreme periphery of the retina completely, indentation of the globe is necessary to bring this extreme periphery into view. Only the combination of indirect ophthalmoscopy and impression of the sclera allows a complete view of the retina.

The recording of our ophthalmoscopic findings on a special chart is the next step. No surgery should be performed without having this drawing present in the operating room, in the same way that a general surgeon needs x-ray pictures.

The purpose of surgery is to close the retinal break. This can be done by irritation of the underlying choroid by mechanical or chemical means. Today Gonin's cautery has been replaced by treatment with diathermy. Instead of treating a number of small breaks separately, a certain area of the retina containing the breaks can be sealed off by creating a scar which acts as a barrage between the breaks and the more posteriorly situated healthy part of the retina. The overall percentage of healing of detachment has risen by these procedures to 40 per cent. However, in recent years attention has been focused on the failures, and serious attempts have been made to improve these cases. The most expert investigators in this field feel that failures are due to traction on the retina by the overlying vitreous. This is especially true for eyes which are malformed by myopia. Therefore, it was logical to attempt to bring the sclera and choroid closer to the detached retina at the time of operation. By doing so it is felt that the traction which necessarily must be present on the newly-formed scars is lowered or even nullified and therefore the percentage of successes is increased.

After using different procedures to attain this goal, nowadays one school performs a scleral buckling almost as a routine procedure. This buckle must be such that either the treated area of the retinal breaks or the area of the barrage is pushed forward towards the vitreous. This buckle should be treated with diathermy. Frequently it is combined with a scleral resection. In order to promote an easy contact between detached retina and underlying layers, a foreign body in the form of a tube is often put in to make the ridge higher and more permanent. In a recently reported series of 1500 of these operations, many of which were failures from previous operations elsewhere, healing was obtained in 75 per cent.

The general practitioner should know that, while the preoperative treatment formerly consisted in complete coverage of the eye and wearing of pinhole goggles, in this new procedure these are no longer necessary. In fact, movements of the eye preoperatively are recommended in order to collect a larger amount of fluid behind the detached retina.

The postoperative treatment has also changed from keeping the patient in bed for several weeks with both eyes covered. Now the time of hospitalization is usually reduced to a week. After that, some activity at home is recommended. Reading is inadvisable, as are long automobile trips. A healing period of four to six weeks should include treatment with mydriatics and cortisone.

The problem of promoting the contact between the detached retina and the underlying layers at the moment of operation is also approached in a completely different way. In this method, human vitreous is injected into an eye which suffers from retinal detachment. This injection is combined with diathermy and drainage of the subretinal fluid. No vitreous is withdrawn, vitreous is added only. The vitreous itself behaves completely inertly and seems to be quite acceptable to the recipient eye. Optically the vitreous becomes clear after a few days of haze. It is easy to draw human vitreous from donor eyes; it can be stored safely for at least seven years. However, the vitreous implant method is not suitable for all kinds of detachment. Therefore, unlike the buckling method, it is not presented as a complete cure of retinal detachment but rather as one more way to save some eyes with a detachment of the retina. It is easier and more quickly performed than a scleral resection or a buckle.

In other words, while the first method pushes the underlying layer up towards the retina, the second pushes the overlying layers down towards the retina. The two methods have in common the fact that they acknowledge the need for a closer contact between the retina and choroid. Each method claims successes in cases of previous failures by the other. Each can be applied after failure of the other. Together they have increased the chances for the healing of a detachment to an overall of perhaps 75 per cent.

Summarizing, we can say that in the treatment of detachment of the retina, first, we must find the tear, secondly, seal the tear. In relatively simple cases, this can be done by producing an inflammatory reaction around the tear by diathermy. This forms a solid scar in which the tear is completely engulfed.

When there is traction in the vitreous, or when the eye is abnormally long, like in myopia, it pays off to bring the retina and its underlying layers closer together. This can be done either by resection or buckling of the sclera, or by injection of preserved vitreous into the vitreous of the patient.

Young, normal eyes, with a traumatic detachment have an excellent chance, close to 100 per cent. The longer the detachment exists, and the more abnormal is the eye, the less are the chances. A figure of 75 per cent healing covers the complete range of detachment cases.

THE DOCTOR'S OFFICE

Donald B. Alderman, M.D. announces the removal of his office to 186 Sherman Avenue, New Haven for the practice of surgery and the diagnosis and treatment of peripheral vascular disease.

Robert I. Lowenberg, M.D. announces that his practice will be limited to vascular surgery including arteriography and aortography at 245 Edwards Street, New Haven.

Charles W. Parton, M.D. announces the opening of an office for the practice of surgery at 34 Connecticut Boulevard, East Hartford.

Arthur C. Unsworth, M.D. announces the association of Edmund C. Rup, M.D. with him in the practice of ophthalmology at 85 Jefferson Street, Hartford.

OUR NEIGHBORS

Postgraduate Medical Education at Albany Medical College

A regional service plan for postgraduate medical education has been set up at the Albany Medical College with the aid of a grant from the Rockefeller Foundation. Receivers and transmitters were installed in 18 hospitals where an average of 200 practicing physicians, in addition to the residents and interns of the hospitals, gathered each week for 20 minute lectures followed by question and answer periods. The programs, broadcast each week to groups of six hospitals, not only permitted the practicing physicians to remain available for service in their communities, but saved an estimated 8,000 hours of travel weekly. To continue this program the Foundation has appropriated $90,000 to Albany Medical College for use during the next three years.

Curriculum Review at Boston University

Boston University has been reviewing its premedical and medical curricula, having in mind improving its medical education pattern. This year a subcommittee representing the Liberal Arts College and the School of Medicine is studying curriculum structure in other schools here and abroad, as well as reviewing the present courses at Boston University. The Rockefeller Foundation is assisting this project to the tune of $50,000 over a two year period.

New York University Training Burmese in Rehabilitation

The Bellevue Medical Center Institute of Physical Medicine and Rehabilitation headed by Dr. Howard Rusk has undertaken the training of a core group of Burmese rehabilitation specialists who will return to their own country and develop similar facilities there once their training is completed. The Rockefeller Foundation is assisting in financing this training program.

THE PRESIDENT'S PAGE

REP. Forand, (Dem.-R. I.) in the closing days of the last session of the 85th Congress, introduced a bill, H.R. 9467, which proposes to amend the Social Security Act to increase benefits under the old-age survivor's and disability insurance programs, and to provide insurance against hospital and "surgical" (not medical) services for persons eligible for retirement benefits.

The bill contains three major revisions of the present Social Security Act. It would (1) initiate hospital, nursing care and surgical payments for persons eligible for retirement or survivorship benefits under O.A.S.I.; (2) increase the earnings formula under which persons would be taxed up to the first $6,000 of earnings (present limit $4,200); and (3) increase dollar benefits payable to workers, their dependents and survivors. The author estimates that under this proposal 12 or 13 million persons could receive medical protection payments in the first year.

The proposed medical benefit would pay the cost of hospital care for 60 days in any year in semi-private accommodations and nursing-home care up to a combined total of 120 days in a twelve month period. Financed also would be the cost of necessary surgical care, with freedom to choose a surgeon of the beneficiary's choice, provided the surgeon is certified by the American Board of Surgery, or is a member of the American College of Surgeons (except in cases of emergency). For oral surgery the patient would also be privileged to select a duly licensed dentist of his choice.

Hospital care could be received only in hospitals which had entered into an agreement for payment with the government. Eligible nursing homes would be only those where skilled nursing care could be obtained, and which were operated in connection with a hospital, or in which nursing care and medical services are prescribed by or performed under the general direction of persons licensed to practice medicine or surgery in the state.

The American Hospital Association believes that this bill is not a suitable solution to the problem of financing the hospital needs of the retired aged, because the eligibility of aged beneficiaries is based on attainment of prescribed ages without regard to their employment status, and thus invites a progressive reduction of these age levels, with the ultimate possibility of a total program of government-financed hospital care; and the bill provides inadequate safeguards against governmental interference with the actual operation of hospitals. Such interference would most likely hamper evolution of patterns of hospital service to the detriment of patient care.

David B. Allman, M.D., president of the A.M.A., says: "This proposal is clearly socialized medicine for a segment of the American people. Enactment would permit the federal government to withdraw social security taxes on a compulsory basis from almost the entire working population, and use those taxes to reimburse hospital and physicians for services rendered to all persons eligible to receive old age and survivor's benefits. American medicine has repeatedly opposed compulsory health insurance and is unequivocally opposed to this new version".

The A.M.A. Board of Trustees has appointed a task-force to conduct an intensive research study of the health status of the population over age 65. Data and opinions will be collected bearing on the following questions:

1. What is the extent of the problem?

2. What are the economic resources of the persons affected?

3. What are voluntary insurers doing and planning to meet existing needs?

4. To what extent does public assistance meet the need?

5. What is the relationship of the family to the aged persons in this group? Specifically, what are the resources and obligations of children and grandchildren to the aged?

6. What is the incidence of hospitalization and illness by age groups?

7. What is the relative status of voluntary measures for the care of the over-sixty-five age group today as compared to the situation five or ten years ago?

The answers to these and other questions will be incorporated in the Association's testimony before Congress and will be used in A.M.A.'s educational efforts.

Here are some reasons why we are opposed to the Forand Bill:

(1) Should these 12 or 13 million persons be given the benefit, younger persons can be expected to demand equal treatment, and the program extended to the entire population would be socialized medicine.

(2) Much unnecessary hospitalization would occur because no outlay of money would be required of the patient to obtain it. This would crowd facilities already overtaxed and make it more difficult to get really sick persons into our hospitals.

(3) Many O.A.S.I. beneficiaries do not need free care. A large percentage of people over 65 are income taxpayers.

(4) Voluntary health insurance would be destroyed eventually, as 40 to 50 per cent of oldsters are now covered.

(5) Voluntary health insurance is doing the job. In 1950 only 20 per cent of those over 65 had coverage, while in 1955 this figure exceeded 40 per cent.

(6) The O.A.S.I. system, now paying out more than it is taking in, is a "dollar benefit" program. This would have grafted on it a "service benefit" program which is costwise unpredictable, a wholly unwise combination in the opinion of insurance men and "social insurance experts".

Our House of Delegates in December went on record in opposition to the bill and voted to urge the members to oppose it by expressing their opposition in writing to Connecticut's members of Congress. However, hearings have not yet been held and their is yet time to act. I trust you will take heed and promptly cooperate with the Committee on National Legislation as requested.

W. Bradford Walker, M.D.

THE SECRETARY'S OFFICE

CREIGHTON BARKER, M.D.

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CALL

ANNUAL MEETING OF THE HOUSE OF DELEGATES

The 1958 Annual Meeting of the House of Delegates will be held in the Music Room of the Stratford High School, North Parade Street, Stratford, commencing at 10:00 o'clock in the morning of Tuesday, April 29.

Following luncheon, the House will reconvene for the completion of business.

W. Bradford Walker, President
Creighton Barker, Secretary

INTRODUCTION OF RESOLUTIONS

Article VII, Section 4 of the By-Laws of the Society provides:

Par. 1. All resolutions to be introduced before the House of Delegates at an annual, semi-annual, or special meeting, except resolutions and recommendations from the Council and resolutions and recommendations that may be contained in committee reports, shall be delivered to the Executive Secretary in time for publication in the official agenda for the meeting at which action is to be taken.

Par. 2. Resolutions and recommendations to be introduced before the House of Delegates at an annual, semi-annual, or special meeting by the Council and recommendations that may be contained in reports of standing or special committees of the Society shall be published in the official agenda for the meeting at which action is to be taken. The official agenda shall be distributed to the members of the House of Delegates at the earliest possible date preceding the meeting.

Par. 3. Resolutions and recommendations which do not meet the requirements of paragraphs 1 and 2 of Section 4 of this article may be accepted for action by a session of the House of Delegates by a majority vote of the delegates present. Such resolution and recommendations shall be referred at once by the presiding officer to reference committees appointed by him from the membership of the House. These reference committees shall consider the resolutions and recommendations referred to them and shall report, with recommendations, to the House before adjournment of the session.

DELEGATES TO ANNUAL MEETING

The By-Laws of the Society provide that each county association is entitled to one delegate in the House of Delegates for each thirty-five members in the association or fraction thereof based on the membership as of December 31st of each year. According to this, the quota of delegates from each county association who should attend the Annual Meeting of the House of Delegates which will be held in Stratford, April 29th and the Semi-Annual Meeting in December is as follows:

COUNTY	MEMBERSHIP DEC. 31, 1957	OFFICIAL DELEGATES
Fairfield	818	24
Hartford	977	28
Litchfield	131	4
Middlesex	112	4
New Haven	888	26
New London	171	5
Tolland	21	1
Windham	63	2

ELECTION OF COUNCILORS AND ALTERNATE COUNCILORS

Councilors and Alternate Councilors should be elected for a term of two years at the annual meeting of the county associations this year in Fairfield, Litchfield, New Haven and Tolland counties. No Councilor or Alternate Councilor elected by a county association shall serve more than three successive terms of two years each in his respective office, but after a lapse of one term of two years, such Councilor or Alternate Councilor may be eligible for re-election.

APPOINTMENT TO COMMITTEE ON PROFESSIONAL RELATIONS

The By-Laws require that the county associations in Fairfield, Litchfield, New Haven and Tolland counties at their annual meeting in 1958 elect a past-president of the association to serve for two years on the state Committee on Professional Relations. No member of the Council of the State Medical Society is eligible for election to this committee and no member shall be elected to serve two consecutive terms.

CHARTER AND BY-LAWS—CONNECTICUT STATE MEDICAL SOCIETY

March, 1958

	ART.	SEC.	PAR.
American Medical Association			
Delegates	VIII	2	1
Arrangements, Committee on	X	3	1
Board of Censors	IX	3	3
Bonding, Fidelity	XI	3	1
Budget	IX	3	5
By-Laws			
Amendment of	XIV	1	1
	XIV	1	2
Enablement	XV	2	1
Cancer Coordinating Committee	X	3	11
Committees Special	X	2	1
Committees Standing	X	1	1
Nomination	X	1	2
Reports	X	1	3
Connecticut Medical Examining Board	X	3	7
Council			
Duties	IX	3	1
Meetings	IX	2	1
Membership	IX	1	1
	IX	1	2
	IX	1	3
Quorum	IX	2	1
Councilors			
At Large	IX	1	3
Officers of AMA	IX	1	2
Term of Office	VI	1	6
	Charter		6
Councilors and Alternate Councilors			
Vacancy	VI	1	7
Voting Rights	IX	1	1
Years for Election	VI	1	4
	VI	1	5
	Charter		6
County Associations	IV	1	1
By-Laws	XIII	11	1
Delegates			
Alternates	XIII	9	4

	ART.	SEC.	PAR.
American Medical Association	VIII	2	1
Apportionment	XIII	9	1
	XIII	9	2
	XIII	9	3
	Charter		5
Discipline	XIII	7	1
Dues	XI	1	1
	XI	2	1
Collection	XIII	10	1
	XIII	10	2
Exemption	XI	1	3
Half Year	XI	1	2
Longevity	XI	1	3
Remission	XI	1	4
Editorial Board	X	3	3
Ethics	III	1	1
Ethics and Deportment Committee	IX	3	4
Executive Secretary			
Duties	VI	2	4
Eye Care Committee	X	3	15
Finance Committee	IX	3	5
Fiscal Year	IX	1	6
Funds, Deposit of	XI	1	5
Hospitals, Committee on	X	3	4
House of Delegates			
Apportionment of Delegates	VIII	1	3
Charter Provisions	Charter		2
Composition	Charter		3
Duties	VIII	2	1
	VIII	2	2
	VIII	2	3
	VIII	2	4
Meetings	VIII	3	1
	VIII	3	2
	VIII	3	3
	Charter		4
Quorum	VIII	3	4
Industrial Health, Committee on	X	3	5
Journal	X	3	3

	ART.	SEC.	PAR.
Managing Editor			
Duties	VI	2	6
Medical Education and Licensure, Committee on	X	3	6
Meetings			
House of Delegates	Charter		4
Society Annual	VII	1	1
	VII	1	2
Society Special	VII	2	1
Membership			
Application	XIII	4	1
Associate	V	4	1
Classes	V	1	1
Eligibility	XIII	3	1
Honorary	V	5	1
	IX	3	6
Requirements	V	2	1
Roster	XIII	6	1
Student	V	3	1
Termination	XIII	8	1
Transfer	XIII	5	1
	XIII	5	2
Mental Health, Committee on	X	3	13
Nominating Committe	IX	3	2
Nominations	IX	3	2
Officers	VI	1	1
Duties	VI	2	
Nomination of	VI	1	2
Vacancies, How Filled	VI	2	9
Past President	VIII	1	2

	ART.	SEC.	PAR.
Postgraduate Education, Committee on	X	3	2
President			
Duties	VI	2	1
President-Elect			
Duties	VI	2	2
Election and Installation	VI	1	3
Professional Relations, Committee on	X	3	12
Program Committee	X	3	7
Public Health, Committee on	X	3	8
Public Relations, Committee on	X	3	10
Purposes of Society	II	1	1
	II	1	2
Reference Committees	VIII	1	4
Referendum	XII	1	1
	XII	1	2
Resolutions and Recommendations			
From Scientific Sections	VII	3	1
Introduction of	VII	4	1
Rules of Order	XV	1	1
Speaker of House of Delegates			
Duties	VI	2	7
State Legislation, Committee on	X	3	9
Third Party Payments, Committee on	X	3	14
Treasurer			
Duties	VI	2	5
Vice-Presidents			
Duties	VI	2	3
Vice-Speaker of House of Delegates			
Duties	VI	2	8

THE CHARTER AND BY-LAWS

(Reprinted February 1958)

The Connecticut State Medical Society was incorporated and chartered by the Connecticut General Assembly in 1792. This is believed to be the earliest private charter granted by the State of Connecticut. The Society has no constitution, the articles of incorporation serve that purpose and cannot be amended without legislative action. The By-laws implement the Charter and it is under them that affairs of the Society are carried on. The By-laws can be amended at any meeting of the House of Delegates after proper notice and they are often revised to keep pace with the progress and changing responsibilities of the Society. The By-laws now published include all amendments to date. The first meeting of the Society was held in Middletown on October 9, 1792.

CHARTER

Be it enacted by the Senate and House of Representatives in General Assembly convened:

Section 1. The charter of The Connecticut Medical Society, approved June 5, 1834, is amended to read as follows: All persons who are, at the time of the passage of this act, members of The Connecticut Medical Society and all physicians and surgeons who shall hereafter be associated with them in pursuance of the provisions of this act shall be and remain a body politic and corporate by the name of The Connecticut State Medical Society; and by that name they and their successors shall and may have perpetual succession; shall be capable of suing and being sued, pleading and being impleaded, in all suits of whatever name and nature; may have a common seal and may alter the same at pleasure and may also purchase, receive, hold and convey any estate, real and personal.

Section 2. The superintendence and management of the corporation shall be vested in a board to be known as "The House of Delegates of The Connecticut State Medical Society," which board shall have power to establish officers in said corporation and prescribe the duties of the several officers and of the members of said corporation and may fix their compensation; to establish the conditions of admission to and dismission and expulsion from said society; to lay a tax, from time to time, upon the members and to collect the same; to hold and dispose of all monies and other property belonging to the corporation in such manner as it may deem advisable to promote the objects and interests of the society and in general to make such by-laws and regulations for the due government of the society, not repugnant to the statutes of the United States or of this state, as may be deemed necessary.

Section 3. The House of Delegates of the Connecticut State Medical Society shall be composed of, (1) the President, the President-Elect, Treasurer and Secretary of the Society, (2) delegates to be elected annually as hereinafter provided, by the several county medical associations in this State which heretofore have been and are affiliated with the Connecticut State Medical Society and (3) the members of the Council of the Society.

Section 4. An annual meeting of the corporation, for the election of officers and such other business as may, from time to time, arise, shall be held upon such day in each year as The House of Delegates shall, from time to time, prescribe. Notice of such annual meeting date shall be sent to every affiliated county medical association at least sixty days before each annual meeting date so prescribed.

Section 5. At a meeting to be held at least twenty days in advance of the annual meeting of the corporation in each year, every affiliated county association shall elect a delegate or delegates to represent it in The House of Delegates of this society in the proportion of one delegate to each thirty-five members, or any part of that number, and the secretary of such affiliated county association shall send a list of such delegates to the secretary of this corporation at least twenty days before the date of such annual meeting.

Section 6. There shall be in The House of Delegates, one Councilor from each affiliated county medical association. The Councilors holding office at the time of the passage of this act shall serve out the terms of office for which they were elected. At their annual meeting to be held in 1931, the affiliated county medical associations for the counties of Hartford, New London, Windham, and Middlesex shall each elect one Councilor who shall serve for two years, and at their annual meeting in 1932 the affiliated county medical associations for New Haven, Fairfield, Litchfield, and Tolland counties shall each elect one Councilor, who shall serve for two years. Thereafter each county, in groups as above mentioned, shall, biennially, elect a Councilor to fill said office for a term of two years. Any vacancy in said office may be filled by the county association of the county in which the vacancy occurs, by election to fill the unexpired portion of the term.

Section 7. The secretary of each affiliated county medical association in this state, shall, within ten days following any meeting of such association at which new members are elected, file with the secretary of the society a list of all members of such association who are at the time in good and regular standing and thereupon all such persons shall become members of The Connecticut State Medical Society without further action.

BY-LAWS

ARTICLE I

NAME

Section 1 Name

Par. 1. The name of this organization shall be The Connecticut State Medical Society.

ARTICLE II

PURPOSES

Section 1. Purposes

Par. 1. The purposes of this Society shall be to federate and bring into one organization the medical profession of the State of Connecticut; to unite with similar society in other states to form the American Medical Association; to extend medical knowledge and advance medical science; to elevate the standards of medical education; and to promote friendly intercourse among the physicians; to enlighten and direct public opinion so that the profession shall become increasingly useful to the public in the prevention and care of disease and in prolonging and adding comfort to life.

Par. 2. The Society is not organized, and shall never be maintained and conducted for the pecuniary profit of its members, officers, or employees but shall be, and remain, a strictly scientific and educational corporation, and no member, officer or employee of the Society shall at any time receive or be entitled to receive any pecuniary profit from the operation of the Society except a reasonable compensation for services actually rendered.

ARTICLE III

ETHICS

Section 1. Ethics

Par. 1. The Principles of Medical Ethics of the American Medical Association shall govern the conduct of members in their relations to each other and to the public.

ARTICLE IV

COMPONENT ASSOCIATIONS

Section 1. Component Associations

Par. 1. The county medical associations in the following counties shall be the component associations of The Connecticut State Medical Society: Fairfield, Hartford, Litchfield, Middlesex, New Haven, New London, Tolland, Windham.

ARTICLE V

MEMBERSHIP

Section 1. Membership

Par. 1. The Society shall consist of members, student members, associate members and honorary members.

Section 2. Members

Par. 1. All members in good standing in the component associations shall be members of this Society. Physicians whose names are on the official roster of membership of a component association shall be considered in good standing.

Section 3. Student Members

Par. 1. Any person whose legal or family residence is in the State of Connecticut who is a regularly enrolled student and a candidate for the degree of Doctor of Medicine in an acceptable medical school, as provided in Section 1662c of the General Statutes of Connecticut, or any person who is a student in an acceptable medical school located in the State of Connecticut may become a Student Member of the Society. Also, physicians not licensed to practice medicine in Connecticut who are serving as interns or residents in hospitals in Connecticut, for the purpose of extending their education and not primarily for remuneration, may become Student Members of this Society.

Par. 2. Such membership shall be obtained by applying to the Council of the Society on a form provided for that purpose and election by vote of a majority of the Council.

Par. 3. Student Members shall enjoy all of the rights and privileges of membership in the Society except that they shall not be eligible to vote or hold office, and Student Members shall pay no dues.

Par. 4. When such a Student Member is licensed to practice medicine in the State of Connecticut and settles in this State in practice or remunerative employment he shall be eligible at once for election to active membership in the County Association in the County in which he has settled without the waiting period of residence within the County, subject to such regulations as may be imposed by such County Associations.

Section 4. Associate Members

Par. 1. Physicians and others interested in the science of medicine and public health who are not licensed to practice medicine in the State of Connecticut, may be elected as Associate Members in this Society by majority vote of the House of Delegates at any regular or special meeting. Candidates for Associate Membership shall be required to file with the Council a formal application for membership which shall be passed upon by the Council with recommendation to the House of Delegates. Associate Members shall enjoy all of the rights and privileges of the Society except that they may not vote or hold elective office; they may be appointed to serve upon committees and present papers before the Society or any of its sections.

Section 5. Honorary Members

Par. 1. Eminent physicians may be elected Honorary Members by majority vote of the House of Delegates in accordance with Article IX, Section 3, Par. 6, Honorary members shall not pay dues to the Society or vote or hold office.

ARTICLE VI

OFFICERS

Section 1. Officers

Par. 1. The officers of this Society shall be a President, a President-Elect, a First Vice-President, a Second Vice-President, an Executive Secretary, a Treasurer, the Managing Editor of the JOURNAL, a Speaker of the House of Delegates, a Vice-Speaker of the House of Delegates, the elected delegates to the American Medical Association, and a Councilor and Alternate Councilor elected from each component association.

Par. 2. The officers, except the President and the Councilors and Alternate Councilors, shall be nominated by the Nominating Committee and elected annually by ballot by the House of Delegates.

Par. 3. The President-Elect shall be elected annually. He shall serve as President-Elect until the annual session of the Society next ensuing after his election and shall become President upon his installation in the course of that session, serving thereafter as President until the next following annual session and the installation of his successor.

Par. 4. A Councilor and Alternate Councilor who shall serve for two years shall be elected at the annual meeting of each of the county associations in Hartford, New London, Windham, and Middlesex counties in the odd numbered years.

Par. 5. A Councilor and Alternate Councilor who shall serve for two years shall be elected at the annual meeting of each of the county associations in New Haven, Fairfield, Litchfield and Tolland counties in the even numbered years.

Par. 6. No Councilor or Alternate Councilor elected by a county association shall serve more than three successive terms of two years each in his respective office, but after a lapse of one term of two years such Councilor or Alternate Councilor may be eligible for re-election.

Par. 7. Any vacancy in the office of Councilor or Alternate Councilor shall be filled by the county association in which the vacancy occurs.

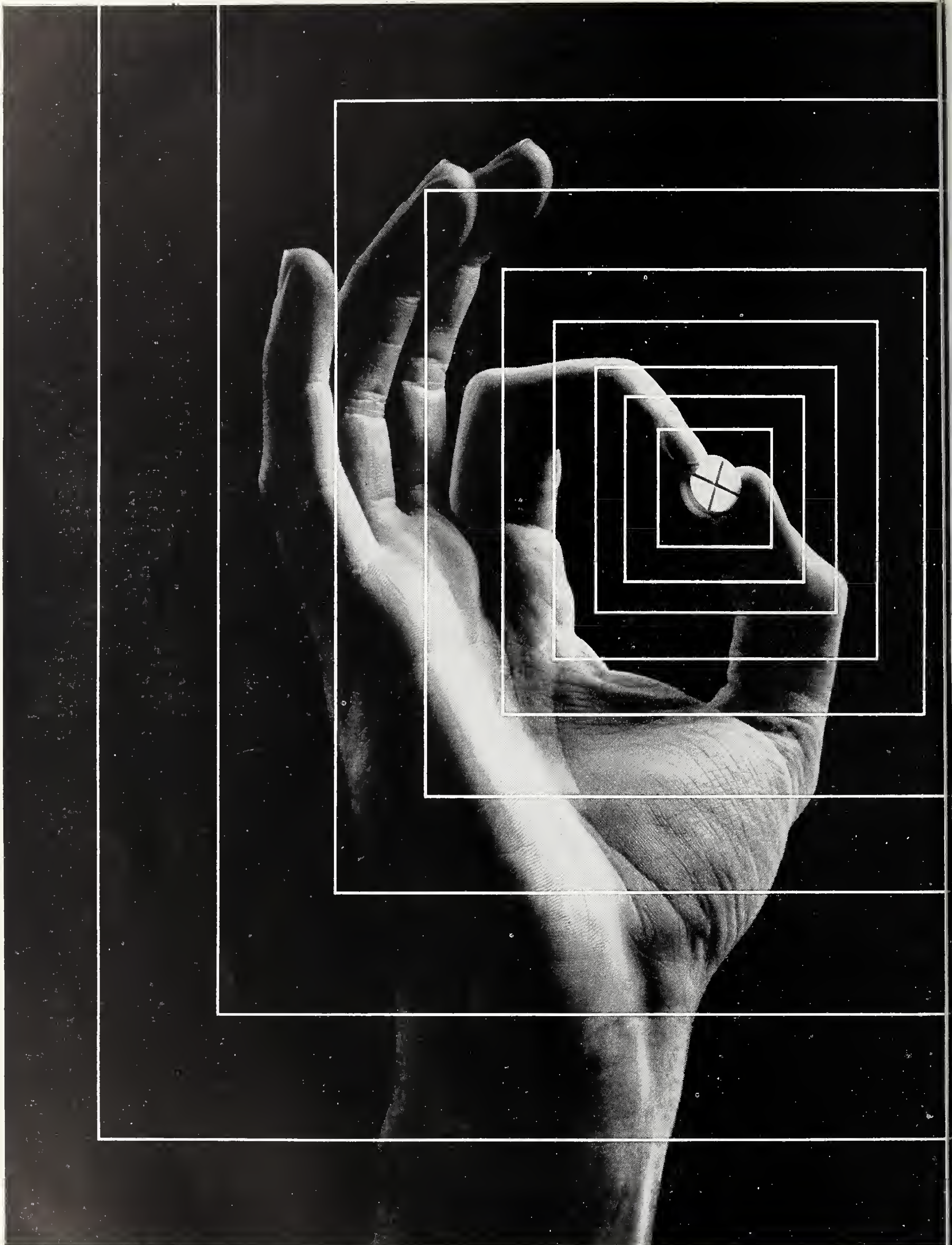
Section 2. Duties of Officers

Par. 1. The President shall preside at meetings of the Society, shall appoint all committees not otherwise provided for, shall visit the various medical associations throughout the state and shall present an annual address before the Society at a time to be arranged by the Program Committee.

Par. 2. The duties of the President-Elect shall be to aid and assist the President.

Par. 3. The Vice-President shall assist the President in the discharge of his duties and in the absence of the President or upon his request shall assume the duties of the office. In the event of a vacancy in the office of President, that office shall be filled for the remainder of the term by the First Vice-President. In the event of a vacancy in the office of President-Elect, the First Vice-President shall succeed to that office and the office of First Vice-President shall be assumed by the Second Vice-President.

Par. 4. The Executive Secretary shall attend the meetings of the House of Delegates, shall verify the eligibility and record the presence of members of the House of Delegates and keep minutes of its proceedings. He shall serve as secretary of the Council and keep a record of its proceedings. He shall provide for the registration of members and delegates at the annual sessions; he shall, with the cooperation of the secretaries of the component associations, keep a card index roster of all the legal practitioners of medicine in the State by counties, noting on each his status in relation to his county association, and, on request, shall transmit a copy of this list to the American Medical Association. He shall cooperate with the officials of the county associations in the



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1. Nichols, R. L. and Finland, M.: *J. Clin. Med.* 49:410, 1957.

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extension of the usefulness of the Society. He shall conduct official correspondence of the Society, notify members of meetings, officers of their election and committees of their appointment and duties. He shall make payment of necessary expenditures from funds allocated by the Treasurer and shall employ such assistance as may be approved by the Council. He may, upon request, supply each component association with the necessary blanks for application for membership and with blanks for making their annual reports. In cooperation with a Program Committee he shall publish and distribute all official programs.

Par. 5. The Treasurer shall receive all funds due the Society and shall receive bequests and donations on behalf of the Society. He shall remit periodically to the Executive Secretary and to the Editor of the JOURNAL prorated portions of the funds allocated to these officers for the operation of their offices. All other payments by him shall be subject to a written order of the Chairman of the Council, or in his absence, the President of the Society. The Treasurer shall give bond in a sum and manner of bonding prescribed by the Council. He shall make a report to the House of Delegates at the annual session.

Par. 6. The Managing Editor of the JOURNAL, in addition to the recognized duties of such an office, shall make payment of necessary expenditures from funds allocated to the JOURNAL, by the Treasurer. His report of expenditures shall be included in the report of the Treasurer to the House of Delegates at its annual meeting.

Par. 7. The Speaker of the House of Delegates shall preside at all regular and special meetings of the House of Delegates except at such times as he may request the Vice-Speaker to preside during his temporary absence from the chair. He shall cooperate with the Executive Secretary and other officers of the Society in arranging the agenda for meetings of the House of Delegates and he shall appoint reference committees as provided in Articles VII and VIII of the By-Laws, or as he may be directed by vote of the House. The Speaker of the House shall have the privilege of voting in the House of Delegates for the purpose of breaking a tie.

Par. 8. The Vice-Speaker of the House of Delegates shall assist the Speaker of the House of Delegates in the discharge of his duties and in the absence of the Speaker, or upon his request, shall assume the duties of his office. In the event a vacancy occurs in the office of Speaker of the House of Delegates, the Vice-Speaker shall succeed to that office until the next annual meeting of the Society.

Par. 9. In the event of a vacancy in the office of Executive Secretary, Treasurer, Managing Editor of the JOURNAL, Literary Editor of the JOURNAL, Vice-Speaker of the House of Delegates, the vacancy shall be filled by a member of the Society appointed by the Council to serve until the next annual or semi-annual meeting of the House of Delegates.

ARTICLE VII

MEETINGS

Section 1. Annual Meetings

Par. 1. The Society shall hold an Annual Session during which there shall be held scientific meetings which shall be open to all registered members and guests.

Par. 2. The time and place for holding each annual session shall be fixed by the Council.

Section 2. Special Meetings

Par. 1. Special meetings of the Society or House of Delegates may be called by the President or by the Council and shall be called by the President on petition of ten members of the House of Delegates or fifty members of the Society.

Section 3. Recommendations

Par. 1. Recommendations made by any scientific session or section meeting may be submitted to the House of Delegates.

Section 4.

Par. 1. All resolutions to be introduced before the House of Delegates at an annual, semi-annual or special meeting, except resolutions and recommendations from the Council and resolutions and recommendations that may be contained in committee reports, shall be delivered to the Executive Secretary in time for publication in the official agenda for the meeting at which action is to be taken.

Par. 2. Resolutions and recommendations to be introduced before the House of Delegates at an annual, semi-annual or special meeting by the Council or resolutions and recommendations that may be contained in reports of standing or special committees of the Society shall be published in the official agenda for the meeting at which action is to be taken. The official agenda shall be distributed to the members of the House of Delegates at the earliest possible date preceding the meeting.

Par. 3. Resolutions and recommendations which do not meet the requirements of Paragraphs 1 and 2, of Section 4 of this article may be accepted for action by a session of the House of Delegates by a majority vote of the delegates present. Such resolutions and recommendations shall be referred at once by the presiding officer to reference committees appointed by him from the membership of the House. These reference Committees shall consider the resolutions, and recommendations referred to them and shall report, with recommendations, to the House before adjournment of the session.

ARTICLE VIII

HOUSE OF DELEGATES

Section 1. House of Delegates

Par. 1. The House of Delegates shall be the legislative and business body of the Society and shall be empowered to carry out the purposes of the Society. It shall consist of the delegates elected by the component county associations and the members of the Council.

Par. 2. All past-presidents of the Society shall be ex-officio members of the House of Delegates without the privilege of voting.

Par. 3. Each component association shall be entitled to send to the House of Delegates each year one delegate for every thirty-five members or any part of that number. A component county association with less than thirty-five members shall be entitled to one elected member of the House of Delegates.

Par. 4. The presiding officer of the House of Delegates may, in his discretion, appoint committees, to be known as reference committees, from the membership of the House to which business or reports presented before the House may be referred for review and recommendations.

Section 2. Duties

Par. 1. The House of Delegates shall elect delegates and alternate delegates from the Society to the House of Delegates of the American Medical Association in accordance with the constitution and by-laws of that body. These delegates and alternates shall take office on the first of January following their election and shall serve terms of two years.

Par. 2. The House of Delegates shall have authority to appoint committees for special purposes from among the members of the Society. Such committees shall make written reports through the Council to the House of Delegates, and members of these committees may attend meetings of the House of Delegates and participate in the discussion of reports submitted by them.

Par. 3. The House of Delegates may provide for a division of the scientific work of the Society into appropriate sections.

Par. 4. No memorial or resolution shall be issued in the name of the Society without first having been approved by the House of Delegates.

Section 3. Meetings

Par. 1. The Annual Meeting of the House of Delegates shall be called by the Council and shall be held during the week of the Annual Session of the Society. The order of business shall be arranged as a separate section of the program by the Council.

Par. 2. A Semi-Annual Meeting shall be held when required at a place and date to be set by the Council.

Par. 3. Special Meetings of the House of Delegates may be called by the President or by the Council and shall be called by the President on petition of ten members of the House of Delegates or fifty members of the Society.

Par. 4. Twenty-five delegates shall constitute a quorum.

ARTICLE IX

The Council

Section 1. Membership

Par. 1. The Council shall consist of one Councilor and one Alternate Councilor from each county association, the President, the President-Elect, the Executive Secretary, the Treasurer, the Managing Editor of the Journal, the Speaker of the House of Delegates, the Vice-Speaker of the House of Delegates, the Delegates to the American Medical Association, any member of the Society who is currently serving as an officer of the American Medical Association, as provided in Article VII, Section 1, of the Constitution of the American Medical Association, and a Councilor-at-large, when elected, by the House of Delegates as provided in Paragraphs 2 and 3 of this section. Each member of the Council shall have one vote.

Par. 2. The Council may, in its discretion, recommend to the House of Delegates, at any annual meeting, the election to the Council for a term of one year of any member of the Society who is serving as a general officer of the American Medical Association as defined in Article VII, Section 1, of the Constitution of that Association.

Par. 3. The Council may, in its discretion, recommend to the House of Delegates, at any annual meeting, the election of a Councilor-at-large, who shall serve for a term of one year. Any member of the Society shall be eligible for nomination to the office of Councilor-at-large.

Section 2. Meetings

Par. 1. The Council shall meet at least every two months throughout the year, except during the months of July and August and September, and at such other times as a meeting may be called by the Chairman of the Council or upon petition of three members of the Council. It shall have its annual meeting for the purpose of organization and election of a Chairman at its first meeting following the annual meeting of the House of Delegates. Eight members of the Council which shall include four Councilors or Alternate Councilors elected by four county associations and four others, shall constitute a quorum for the transaction of business.

Section 3. Duties

Par. 1. The Council shall have the power to act for the House of Delegates between meetings of that body and shall report such actions to the House of Delegates at its next meeting.

Par. 2. The Chairman of the Council and the Councilor from each county shall be the Nominating Committee of the Society. The Chairman of the Council shall be the chairman of the committee. The committee, after consultation and advising with the entire Council, shall report its nominations to the first session of each annual meeting of the House of Delegates. Following this report nominations may be made from the floor.

Par. 3. The Council shall be the Board of Censors of the Society. It shall consider all questions involving the rights and standing of members, in relation to other members, to the component associations, or to this Society. All questions of an ethical nature brought before the House of Delegates or a general meeting shall be referred to the Council without discussion. It shall hear and decide all questions of discipline affecting the conduct of members or component associations on which an appeal is taken, and its decision in all such matters shall be final.

Par. 4. The Council shall serve as a board of review for cases of claimed malpractice referred to it by the Committee on Medical Ethics and Deportment of any component county association.

Par. 5. The Council shall be the finance committee of the Society and shall superintend and direct all financial transactions of the Society and shall prepare and submit annually to the House of Delegates a budget for the operation of the Society.

Par. 6. The Council may present annually to the House of Delegates the names of not more than three eminent physicians as candidates for Honorary Membership in the Society. The Council may recommend to the House of Delegates the bestowal of an Honorary Degree in medicine upon any person not a physician, distinguished in the sciences of medicine or for contribution to human welfare.

Par. 7. The Council shall make an annual report to the House of Delegates.

ARTICLE X

Committees

Section 1. Standing Committees

Par. 1. The Standing Committees of the Society shall be as follows:

A Committee on Arrangements
A Committee on Postgraduate Education
An Editorial Board of the Journal
A Committee on Hospitals
A Committee on Industrial Health
A Committee on Medical Education and Licensure
A Program Committee
A Committee on Public Health
A Committee on State Legislation
A Committee on Public Relations
A Cancer Coordinating Committee
A Committee on Professional Relations
A Committee on Mental Health
A Committee on Third Party Payments
A Committee on Eye Care

Par. 2. Unless otherwise specified in these by-laws, nominations for these committees and their chairmen shall be made by the Nominating Committee and presented to the Annual Meeting of the House of Delegates.

In the event of vacancy in membership or chairman of these committees such vacancy shall be filled by appointment by the Council to hold office until the next annual or semi-annual meeting of the House of Delegates.

Par. 3. All standing and special committees, except the Committee on Arrangements, shall make a written report to the Council before the first of April of each year for transmittal with recommendations to the annual meeting of the House of Delegates. The Council, in its discretion, may request that any standing or special committee make a semi-annual report in writing to the Council for transmittal to the semi-annual meeting of the House of Delegates.

Section 2. Special Committees

Par. 1. Special committees may be appointed by the Council or elected by the House of Delegates as may from time to time be required. Committees appointed by the Council shall make written reports to the Council as directed by it. Committees elected by the House of Delegates shall make written reports to the Council in the same manner as provided for standing committees.

In the event of vacancy in membership or chairman of special committees elected by the House of Delegates such vacancy shall be filled by appointment by the Council to hold office until the next annual or semi-annual meeting of the House of Delegates.

Section 3. Duties of Committees

Par. 1. The Committee on Arrangements shall be appointed by the component association with which the annual session of the Society is to be held. It shall provide suitable accommodation for the meeting places of the Society, and of the special sections, and of the House of Delegates, and of their respective committees. Its chairman shall report an outline of the arrangements to the Executive Secretary for publication in the program.

Par. 2. The Nominating Committee shall nominate to the House of Delegates each year a Committee on Postgraduate Education of not less than seven members and name its chairman. The purposes of the committee shall be to plan and make available programs of postgraduate education for members of the Society, to arrange and conduct the annual Clinical Congress of the Society and to cooperate with university and other agencies within the state for the extension of postgraduate education of physicians.

Par. 3. The Nominating Committee shall nominate to the House of Delegates each year an Editorial Board of the Journal, consisting of not more than fifteen members. One of these shall be nominated as the Managing Editor of the Journal and he shall be a member of the Council also. One other member of the Board shall be nominated as Literary Editor of the Journal and he shall serve as Chairman of the Editorial Board. The Literary Editor, with the active participation and advice of other members of the Board, shall be responsible for the acceptance or rejection of manuscripts for publication and for their literary quality. He shall not be concerned with the business or financial aspects of the Journal, which shall be the responsibility of the Managing Editor. The remaining members of the Editorial Board shall be selected so far as feasible, to represent the major divisions of medicine, surgery, pediatrics, obstetrics and psychiatry and consideration shall be given to representation from the geographic areas of the state. In addition to the Board so nominated, the President of the Society shall serve as an ex-officio member with all rights and privileges of other members during the term of his office. The Editorial Board shall edit and publish the Connecticut State Medical Journal and shall determine its advertising policy, all in a manner to promote the best interests of medicine.

Par. 4. The Nominating Committee shall nominate annually to the House of Delegates a Committee on Hospitals to consist of not less than six members, and shall nominate the chairman thereof. This Committee shall pursue a continuing study of the relation of the medical profession to the operation of public and voluntary hospitals within this state and shall, when indicated, confer with the State Department of Health and representatives of the Connecticut Hospital Association and make recommendations to the Society.

Par. 5. The Nominating Committee shall nominate to the House of Delegates annually a Committee on Industrial Health to consist of not less than ten members, and nominate the Chairman thereof. The function of this Committee shall be to inquire into health in industry with the purpose of making information on the subject available to the members of the Society and all other persons interested in improving health and hygiene of persons employed in industry.

Par. 6. At each annual meeting the Nominating Committee shall nominate to the House of Delegates a member of the Society to be proposed to the Governor of the State of Connecticut for appointment as a member of the Connecticut Medical Examining Board for a term of five years in accordance with Section 4365 of the General Statutes of 1930 as amended. During the month of December of each year the Executive Secretary of the Society shall prepare a statement informing the Governor of the Society's choice of a member to be appointed as a member of the Connecticut Medical Examining Board, and, after obtaining the signature of the President of the Society on this statement, it shall be delivered to the Governor. In the event of a vacancy on the Connecticut Medical Examining Board and when it is not practicable to have the choice of another member of the Society who is to be recommended to the Governor for appointment made by the House of Delegates, the President shall propose to the Governor a member of the Society for appointment. The Connecticut Medical Examining Board shall constitute the Society's Committee on Medical Education and Licensure and the President of that Board as elected by its members shall be the Chairman of the Society's Committee. The function of the Committee on Medical Education and Licensure shall be to study the educational and legal requirements for practitioners of medicine in the State of Connecticut, to provide information for the members of the Society on these and related subjects, and, as occasion arises, to recommend to the Society amendments to the statutes regulating the practice of medicine within this state and the maintenance of a high quality of medical care in Connecticut.

Par. 7. The Program Committee shall consist of three members, one member of which shall be nominated annually by the Nominating Committee for election by the House of Delegates for a term of three years. The chairman of the Committee shall be the member who is serving the final year of his term of office. The duties of this Committee shall be to arrange the scientific program for the annual meeting of the Society, prepare such a program for submission to the Executive Secretary of the Society for publication not less than two months preceding the date of the meeting.

Par. 8. The Nominating Committee shall nominate to the House of Delegates annually, one member from each component county association and such additional members as it may determine not to exceed fifteen to be the Committee on Public Health and nominate the Chairman thereof. The Committee on Public Health shall be the representative of the Society, in all matters pertaining to public health, sanitation, the prevention of communicable diseases, maternal and infant welfare. It shall confer from time to time with the Connecticut State Health Department and other legal public health authorities in a manner mutually agreeable, and it shall inform the Society concerning matters of public health and, as occasion arises recommend for the Society's consideration desirable legal enactments to promote public health within the state.

Par. 9. Before the 15th of January of each year, the secretary of each county association, acting on behalf of the association, shall forward to the Executive Secretary of the Society, the name of a member of the county association who is recommended to the Nominating Committee for nominating as a member of the Committee on State Legislation. In addition to these eight members, the Committee shall include the delegates to the American Medical Association and the Executive Secretary, who shall serve as the executive officer of the Committee. The chairman of the Committee shall be designated by the Nominating Committee. The function of this Committee shall be to review and advise the members of the Society concerning proposed state legislation pertaining to the public health, welfare and the practice of medicine. The Committee shall, as occasion arises, draft and have introduced into the General Assembly of this state, appropriate legislation for improving medical care and the public health within the state, advising the Society's legislative agent concerning the opinion of the Society on pending legislation, and supervise and direct the Society's program in the state legislative field.

Par. 10. The Nominating Committee shall nominate to the House of Delegates annually a Committee on Public Relations to consist of eight members and nominate the chairman thereof. The function of this Committee shall be to inquire into and pass upon such phases of public information as deal with the care of the sick and the practice of medicine, and shall endeavor to keep the people of Connecticut accurately and reliably informed concerning matters of public interest in the field of medicine. The Committee shall use its efforts to encourage cordial relations and understanding with the public press and radio, and cooperate with other committees of the Society in a program of public relations.

Par. 11. The Nominating Committee shall nominate to the House of Delegates annually a Cancer Coordinating Committee. The membership of this Committee shall include a chairman, one member from the cancer committee of each general hospital in Connecticut, and shall at all times include the President of the Connecticut Cancer Society and a representative of the State Department of Health. This Committee shall be governed by an Executive Committee designated by the Council, which shall include the chairman, President of the Connecticut Cancer Society, representative of the State Department of Health, and six members selected from the other membership of the Committee. The purpose of this Committee shall be to coordinate and integrate the efforts of the various agencies concerned with the study, prevention and treatment of cancer in Connecticut, to aid and encourage the establishment and maintenance of high professional standards in the cancer clinics of the general hospitals, and to organize and promote professional education regarding cancer in Connecticut.

Par. 12. At its semi-annual meeting in 1950 each component county medical association shall elect a past president of the association to serve on a state Committee on Professional Relations. The members so elected from the associations in the counties of Hartford, New London, Windham and Middlesex shall serve until the annual meeting of these associations in 1951 at which time the Hartford, New London, Windham, and Middlesex County Associations shall elect a past president to serve on the state Committee on Professional Relations for a period of two years and such elections shall be held biennially thereafter. The members so elected from the associations in the counties of New Haven, Fairfield, Litchfield, and Tolland shall serve until the annual meetings of these county associations in 1952 at which time the New Haven, Fairfield, Litchfield, and Tolland County Associations shall elect a past president to serve on the state Committee on Professional Relations for a period of two years and such elections shall be held biennially thereafter:

No member shall be elected to serve two consecutive terms of two years each, but this restriction shall not apply to the members elected originally at the semi-annual meetings of 1950. No member of the Society who is an elected officer or a member of the Council of the State Medical Society shall be eligible for election to this Committee.

The Committee shall elect its own chairman and recorder and all sessions of the Committee shall be executive sessions and not attended by others except upon invitation of the Committee.

This Committee shall have no jurisdiction in legal actions relating to professional malpractice or negligence. The purposes of the Committee shall be (1) to hear complaints and charges against members of the Society referred to it by county medical associations and, (2) to hear appeals from decisions on charges reached by county medical associations or boards of censors of county medical associations.

When charges against members of the Society are received by the Society's Secretary, either from the public or other physicians, they will be referred at once to the secretary of a county association of which the physician complained against is a member and original jurisdiction in the complaint shall lie with that county association. If in the judgment of the appropriate committee of the county association the complaint should be heard by the state Committee on Professional Relations, it shall refer the complaint to that Committee. The member of the Committee representing the county association, to which a physician against whom charges have been brought belongs, shall not vote on the final conclusions reached by the Committee.

After a hearing during which the complainant and the physician against whom written charges have been brought shall be given an opportunity to appear, the Committee by ballot shall exonerate or impose such disciplinary action as it may deem appropriate and these disciplinary actions may include reprimand, suspension or termination of membership in the Society. The Committee, upon arrival at a decision, shall notify the physician, against whom charges have been brought (by registered mail) of its findings and disciplinary action to be taken and at the same time, file a resume of its findings and action with the secretary of the county association to which the physician belongs and with the Council of the State Medical Society. A member disciplined by the action of this Committee shall have the right of appeal to the Council before the expiration of 15 days from the receipt of the Committee's findings. In the absence of such appeal, the action of the Committee is final.

Par. 13. The Nominating Committee shall nominate to the House of Delegates annually a Committee on Mental Health to consist of not more than eight members and nominate the chairman thereof. This Committee shall be continually informed concerning the provisions for the care of the mentally ill in the state and those addicted to the use of habit-forming drugs and alcohol with the purpose of making information on these subjects available to the members of the Society and, if indicated, to recommend and support legislation for the improvement of the care of persons in this state so afflicted.

Par. 14. The Nominating Committee shall nominate to the House of Delegates annually a Committee on Third Party Payments to consist of five members and nominate the chairman thereof. The function of this Committee shall be to study existing and projected systems providing payment for physicians' services by any public, private, or cooperative agency, and to advise the Society concerning them. In its operations, the Committee shall confer with representatives of such agencies and other committees of the Society having interest and responsibility in specific phases of medical care that involve payment of physicians by third party agencies.

Par. 15. The Nominating Committee shall nominate annually to the House of Delegates a Committee on Eye Care and nominate the chairman thereof. The membership of this committee shall be not more than fifteen members and shall include at least four but not more than seven members of the Executive Committee of the Eye, Ear, Nose and Throat Section and shall include the advisors from the Society to the Public Relations Committee of the American Medical Association, Section on Ophthalmology. The purpose of this committee shall be to coordinate and integrate the efforts of various agencies whose functions may include some phase of eye care, to cooperate with other committees of the Society in the eye care phases of their activities, and to cooperate with the AMA committees concerned with the promotion of eye care. The Committee shall develop and make available to members of the Society and all other persons interested in improving eye care, information on all phases of eye care. The Committee shall also, as occasion arises, recommend for the Society's consideration desirable legislative enactments to promote improvements in eye care within the state.

ARTICLE XI

Funds and Expenses

Section 1. Funds

Par. 1. Funds for the operation of the Society shall be raised by an equal annual per capita assessment from each member of a component county association, except:

Par. 2. Members who are elected to the county associations at the semi-annual meetings will be assessed one-half of the annual dues for the year of their election.

Par. 3. Members who have been in good standing in the Society for 40 consecutive years or who have attained the age of 68 and have been members of the Society for 15 years immediately preceding shall be exempt from further payment of dues upon written request addressed to the Treasurer of the Society by the Secretary of the County Association in which the physician seeking exemption is a member and shall continue as active members of the Society enjoying all rights and privileges.

Par. 4. The dues of any member may be remitted by vote of the Council on recommendation of a County Councilor or Alternate Councilor.

Par. 5. All funds of the Society shall be deposited promptly upon receipt in a state or national bank located in the State of Connecticut.

Par. 6. The fiscal year of the Society shall commence on January 1 and terminate on December 31 of each year.

Section 2. Budget

Par. 1. The annual budget of the Society shall be prepared by the Council, as the Finance Committee of the Society, and be presented to the House of Delegates for approval. Based upon that budget the Council shall recommend to the House of Delegates the amount of per capita assessment for the ensuing fiscal year. All requests and resolutions appropriating funds of the Society shall be referred to the Council for recommendation to the House of Delegates and all such requests and recommendations must be approved by the House of Delegates before funds may be expended.

Section 3. Fidelity Bonds

Par. 1. The Council shall prescribe and provide at the expense of the Society proper fidelity bonds for officers of the Society and other persons responsible for the receipt, custody and disbursement of funds belonging to the Society.

ARTICLE XII

REFERENDUM

Section 1. Referendum

Par. 1. A general meeting of the Society may, by a two-thirds vote of the members present, order a general referendum on any question pending before the House of Delegates, and when so ordered the House of Delegates shall submit such questions to the members of the Society who may vote by mail or in person, and, if the members voting shall comprise a majority of all the members of the Society, a majority of such vote shall determine the question and be binding on the House of Delegates.

Par. 2. The House of Delegates may, by a two-thirds vote of its members present, submit any question before it to a general referendum, as provided in the preceding section, and the result shall be binding on the House of Delegates.

ARTICLE XIII

COMPONENT COUNTY ASSOCIATIONS

Section 1. Component County Associations

Par. 1. The County Medical Associations in Fairfield, Hartford, Litchfield, Middlesex, New Haven, New London, Tolland, and Windham Counties now in operation and in affiliation with The Connecticut State Medical Society shall be the component county associations, of this Society.

Section 2. Function

Par. 1. The function of the component medical associations shall be to bring together into one organization the physicians of each county and these associations shall be united for the purpose of organizing the medical profession in the State of Connecticut as provided in Article II, Section 1, of these By-Laws.

Section 3. Eligibility for Membership

Par. 1. All registered physicians licensed under Section 1660c of the General Statutes of the State of Connecticut, 1930, as amended, shall be eligible to apply for membership.

Section 4. Application for Membership

Par. 1. A physician who desires to become a member of a county medical association shall obtain from the Secretary of that association an application form which, when completed, shall be returned to the Secretary. A physician living near a county line may hold membership in that county most convenient for him on permission of the association in whose jurisdiction he resides.

Section 5. Transfer of Membership

Par. 1. A member of a component association of the Society who removes his residence to another county within this state and who wishes to transfer his membership to the county association in the county of his new residence may do so upon the presentation of a certificate signed by the Secretary of the county association of which he is a member. This certificate shall state that he is a member in good standing in the association of the county where he previously resided and that his financial obligations to that association for the current year have been paid. The certificate shall be accompanied by a regular application for membership. The association in the county of his new residence shall add him to the rolls of that association without formality and without charging any dues for the remainder of the year of his transfer.

Par. 2. A member of a state medical society in another state, that is a component of the American Medical Association, wishing to transfer his membership to a component county association of this Society shall present to the Secretary of the component association of this Society in which he is seeking membership a certificate from the Secretary of the county or state medical society of his previous residence. This certificate shall state that he is a member in good standing in that county or state medical association. This certificate and a properly completed application for membership shall be forwarded to the Board of Censors or Credentials Committee of the component association in this state in which he is seeking membership and that Board of Censors or Committee on Credentials may recommend his election at the next meeting of the component association.

Section 6. Membership Roster

Par. 1. The Secretary of each component association shall keep an individual record of the members of that association, and this record shall include the full name, address, college degrees with year, medical schools attended with school and year of graduation, hospital affiliations, type of special practice, if any, and date of registration in this state. Notations shall also be made concerning transfer and termination of membership.

Section 7. Discipline

Par. 1. Any member of a component county association who is aggrieved by disciplinary action of the county association of which he is a member shall have the privilege of appealing to the Council of the Society which shall review the charges made against the disciplined member and the findings therein and render a decision concerning the disciplinary action taken; this shall be final.

Section 8. Termination of Membership

Par. 1. When membership in a component county association terminates for any cause, membership in the Connecticut State Medical Society shall be terminated automatically as of the same date.

Section 9. Delegates to the House of Delegates of the Society

Par. 1. Each component county association shall be represented in the House of Delegates of the Society on the basis of one delegate for each thirty-five members and any part of that number. Component associations with less than thirty-five members shall be entitled to one elected delegate.

Par. 2. On or about the 15th of March of each year the Executive Secretary of the Society shall inform the Secretary of each of the component associations of the number of members in good standing in each component association on the 31st of December just preceding, and compute therefrom the number of delegates to which each county association is entitled for the ensuing year.

Par. 3. At least twenty days prior to the annual meeting of the House of Delegates the Secretary of each component association shall inform the Executive Secretary of the Society of the names and addresses of the officially elected and qualified delegates from each county association.

Par. 4. In case of the inability of a regularly elected delegate to attend meetings of the House of Delegates, the President or the Secretary of the county association in which the vacancy occurs shall appoint an alternate delegate, with full power to represent that county association during the interim, or until the successor of such regularly elected delegate is elected. Upon the appointment of such alternate delegate, the Secretary of the county association in which the appointment is made shall inform the Executive Secretary of the Society of the appointment at once, and before the alternate delegate may be seated in the House of Delegates.

Section 10. Dues

Par. 1. Any of the component county associations may at its option collect the annual dues assessed by the Society in conformity with regulations established by the Treasurer of the Society. Bills for these dues shall be rendered to all members immediately following January 1 of each year and the component county associations shall forward all monies so collected on behalf of the Society to the Treasurer of the Society quarterly and at such other times as the Treasurer may direct and they shall accompany all payments with a report on a form to be provided by the Treasurer.

Par. 2. If a component county association does not elect to collect the annual dues assessed by the Society as provided in Paragraph 1 above, the Treasurer of the Society shall collect the annual dues assessed by the Society from the members of that component county association and collect also the dues assessed by that county association. In that event the Treasurer of the Society shall remit to the county association periodically all monies collected on behalf of that association and shall file an accounting of all county association assessments so collected for the year just closed with the county association before the 15th of January of each year.

Section 11. By-Laws

Par. 1. The component county associations shall have the power to adopt only such by-laws as are not in conflict with the by-laws of The Connecticut State Medical Society. In the event of an existing or apparent conflict the by-laws of the Society shall take precedence over those of a component county association.

ARTICLE XIV

AMENDMENTS

Section 1. Amendments

Par. 1. The by-laws of the Society may be amended by a majority vote of the total number of the members of the House of Delegates.

Par. 2. Proposed amendments to the by-laws shall be submitted first to the Council and published with the Council's recommendation, in the CONNECTICUT STATE MEDICAL JOURNAL at least one month prior to the date of the meeting of the House of Delegates at which action thereon is to be taken. Copies of the proposed amendments shall also be forwarded to each member of the House of Delegates in the notices of the meeting at which the amendments are to be acted upon.

ARTICLE XV

PARLIAMENTARY PROCEDURE

Section 1. Rules of Order

Par. 1. In all matters of parliamentary procedure the Society shall be governed by Robert's Rules of Order.

Section 2. Enablement Clause

Par. 1. The adoption of these by-laws rescinds and revokes all previous by-laws of the Society and supersedes their operation.

Meetings Held In February

3	Executive Committee, Cancer Coordinating Committee
4	Committee on Postgraduate Education
5	Committee on National Legislation
	Committee on Insurance
	Committee on Maternal Mortality & Morbidity
	Committee on Industrial Health
6	Medical Advisory Committee, Connecticut Cancer Society
	Committee on Third Party Payments
19	Committee on Perinatal Morbidity
20	Council
	Committee on Third Party Payments
24	Committee on Public Health
26	Committee on Accident Prevention

CONNECTICUT MEDICAL SERVICE

PROFESSIONAL POLICY COMMITTEE
Henry A. Archambault, Taftville, *Surgery*
John D. Booth, Danbury, *Surgery*
Gray Carter, Greenwich, *Internal Medicine*
Edwin R. Connors, Bridgeport, *General Practice*
Philip M. Cornwell, Hartford, *Urology*
Francis H. Foley, Bridgeport, *Orthopedics*
Edward R. Howe, Hartford, *Obstetrics and Gynecology*
Roswell D. Johnson, New Britain, *Pediatrics*
William J. Neidlinger, Hartford, *Otolaryngology*
Alan J. Ryan, Meriden, *Surgery*
Harold E. Speight, Middletown, *Internal Medicine*

CONNECTICUT PLAN – INTEGRATED

Connecticut Contract – CMS

WILLIAM H. HORTON, M.D., *Windsor*

The Author. *Executive Director and Director of Medical Services, Connecticut Medical Service, Inc.*

It has been recognized for many years that the coverage provided by a basic medical care contract cannot completely meet the needs of the cost of medical care problem. While good basic coverage has provided satisfactory benefits for the professional services of physicians for a majority of illnesses, the benefits have been inadequate when the member-patient was confronted with the cost of medical care involved in prolonged treatment of serious accidents, protracted illnesses, physical disabilities and invalidism. The introduction of major medical expense-type contracts of the insurance industry and the development of similar extended benefits programs by prepaid medical care plans found a ready response from the public. The number of persons covered under such contracts had increased rapidly.

Many CMS enrolled groups have been anxious to provide such extension of benefits for several years. The provisions of Chapter 253, General Statutes, Medical Service Corporations, restricts coverage specifically to professional services of Doctors of Medicine. With such a restriction CMS is unable to provide the services customarily included in major medical expense-type contracts for its members. In 1957 a bill (Senate Bill 404) was introduced in the General Assembly which, if favorably considered, would have broadened the coverage Medical Service Corporations could provide. The Insurance Committee of the General Assembly was informed of the desirability of being able to write such coverage and it was pointed out that a considerable number of Participating Firms had terminated their CMS coverage to adopt health insurance which included major medical expense-type benefits. Senate Bill 404 was eventually sent to the Legislative Council for further study and CMS was still without authority to provide major medical expense benefits.

Midyear in 1957 Phoenix Mutual Life Insurance Company decided to enter the major medical expense field and did not wish to write either basic hospital or basic medical service policies. Representatives of Phoenix inquired if CMS would be interested in having Phoenix Mutual major medical expense policies available to supplement the Preferred Contract. At the conclusion of the discussions, a mutually satisfactory program was agreed upon. Essential principles of this program were:

1. That Phoenix Mutual and CMS would individually underwrite their own contracts and policies, and determine, bill and collect their own membership charges and premiums.
2. That the Preferred Contract and the Phoenix Mutual Major Medical Policy would be offered to prospects in a joint presentation with Phoenix representatives selling their own policy and the CMS Enrollment representatives selling the Preferred Contract.

This joint effort on the part of CMS and Phoenix Mutual has only recently got under way and its early results indicate that it will enable CMS to satisfy the requirements of many of our Participating Firms who desire a major medical expense policy to supplement the benefits of the CMS Preferred Contract.

Development of Connecticut Plan—Integrated

Since 1952, CMS has been engaged in studying a suitable means by which the purposes of prepaid medical care plans sponsored by units of organized medicine could be accomplished in conjunction with health insurance plans of the insurance industry. C. Manton Eddy, Dr. Norman Barker, and Steven Williams of Connecticut General Life Insurance Company have, throughout these years, joined with CMS in the study of this important problem. On both sides the original problems seemed insurmountable but since those engaged in these studies were so certain that any satisfactory over-all coverage of health care must ultimately follow such a pattern, the work was continued. Connecticut Plan–Integrated is now a reality and available to the people of Connecticut.

The CMS Connecticut Contract has been approved by the Insurance Commissioner; the Medical Catastrophe Expense Benefits Policy GM 1370 has been filed in the Insurance Department by Connecticut General Life Insurance Company. These contracts and policies are completely independent but their content has been developed in such a manner that when a member of an enrolled group has the protection provided by the contract and the policy (Connecticut Plan–Integrated), he has very substantial coverage of his health care needs. The idea of a prepaid medical care plan and an insurance company writing separate, yet closely co-ordinated, coverages is unique and its practicality yet to be proved. The initial sales of the CMS Connecticut Contract and the Medical Catastrophe Expense Benefits Policy of Connecticut General to Participating Firms will readily demonstrate the strength or weaknesses of the integration concept. If the underwriting experience of this pioneering effort with Connecticut General fulfills the expectations of those who have devised it, it may be that other companies in the health insurance field will wish to develop similar policies for integration with the CMS Connecticut Contract. The Medical Catastrophe Expense Benefits Policy GM 1370 of Connecticut General is available only to enrolled groups holding the Connecticut Contract.

We believe the Connecticut Plan represents an extremely important milestone in health care for it provides a practical means by which to combine the purposes of prepaid medical care plans sponsored by medical societies with the legitimate interests of companies in the insurance industry. This combined effort will best serve the needs of the people. Connecticut Plan–Integrated is a closely coordinated (integrated) system of coverage of health care expense in which CMS provides the greater part of all basic services of Doctors of Medicine, that is, those which are customarily provided without the requirements of deductible amounts or co-insurance; the Medical Catastrophe Expense Benefits Policy provides the coverage of physicians' services which are required by extended illness or disability as well as the basic ancillary medical services, such as, private duty nurses, visiting nurses, drugs outside of hospitals and prosthetic appliances, on a coinsurance and deductible basis. The Medical Catastrophe Expense Benefits Policy can be written to supplement Blue Cross hospitalization or to provide both the basic and extended hospital coverage.

The Connecticut Contract

The chief provisions of the new contract are:

A. CMS Professional Services

1. Surgical-Obstetrical Services

   The liability for professional services has been increased from $300 to $500 per Section to provide additional benefits in the basic coverage of professional services. Several changes have been made in the organization of the complete Schedule of Surgical Operations in the Participating Physicians Handbook. These are: Sections I and V have been combined as Section I; Sections VII and VIII have been combined as Section VI to bring all abdominal surgery under one Section with a liability of $1000 rather than at present with two separate Sections with a liability of $500 each; herniorrhaphies have been placed in the Abdominal Surgery Section which seems a more logical location than the present inclusion of them in Section V which covers Infections and Traumata. There will, therefore, be fourteen Sections in the Schedule of Surgical Operations in the revised

Participating Physicians Handbook, each of which will have a maximum liability of $500 except Section VI, Abdominal Surgery, which will have a maximum liability of $1000.

Professional fees for the Connecticut Contract have been arranged, after meeting with representatives of the specialty sections involved, to reflect an increased disbursement of approximately 25 per cent per Section. In addition, the maximum professional fee has been increased from $300 to $500. These fees in excess of $300 have been allocated, in proper relation to the other specified fees, to those procedures which customarily require long periods of operating time, the maximum degrees of technical skill, and unusual post-operative care.

The printing of the new Fee Schedule is not yet complete but the following are representative of fees for the more commonly performed procedures:

Procedure	Connecticut Contract	Preferred Contract
Thyroidectomy, subtotal, bilateral	225	175
Mastectomy, radical	300	200
Aortic anastomosis	500	300
Varicose veins, complete with dissection, unilateral	125	100
Lobectomy or segmental resection	400	300
Subtotal gastrectomy	350	300
Colectomy, total, complete	400	300
Appendectomy	150	125
Hemorrhoidectomy	100	80
Herniorrhaphy, inguinal, unilateral	150	125
Cholecystectomy	250	200
Cholecystectomy, with exploration of common duct	300	200
Nephrectomy	275	250
Cystoscopy, with ureteral catheterization	40	35
Benign prostatic hyperplasia, surgical treatment	250	200
Caesarean section	175	110-125
Salpingectomy	150	125
Supracervical hysterectomy	200	175
Strabismus, one muscle	150	125
Reattachment of retina, unilateral	275	200
bilateral	350	300
Extraction of lens, unilateral	300	200
Sub-total rhinoplasty	225	200
T & A, child to age 12	60	50
adult	70	60
Craniotomy, for removal of blood clot	250	200
with removal of tumor	500	300
Lumbar disc operation, with or without fusion, one surgeon	275	250
Reduction of Colles' fracture, closed	100	75
Reduction of Femur, head, open	300	250
Triple arthrodesis	275	200

2. Inhospital Medical Care

Payments for inhospital medical care have been increased to $8 per payable day, beginning on the fourth day of hospitalization, for ten payable days. Thereafter, three payable days at $8 per day are provided in each of the next three weeks of hospitalization. Should the patient's condition continue critical during these three weeks and more extensive care be required than can be provided by the three payable days, additional payable days at $8 per day may be made at the discretion of the Professional Policy Committee based on the written report of the attending physician which will cite the necessity for such additional services. While inhospital medical care under the Connecticut Contract is less than the 120 day coverage of the Preferred Contract, since the Connecticut Contract is integrated with a Medical Catastrophe Expense Benefits Policy additional professional services required thereafter will be covered under that policy.

3. Radiology in Physicians' Offices

Radiology benefits have been increased by enabling the member to have a second radiological procedure (except chest x-ray) performed on one day with only a $5 deductible amount after the $10 deductible amount has been paid on the first procedure. The chest x-ray will still require a $10 deductible payment. Radiological procedures in excess of two per day will require the usual $10 deductible for each listed procedure. The foregoing are applicable to diagnostic radiological services as well as to the diagnosis of traumatic injuries to which they are applied under the Preferred Contract.

Certain radiological fees have been increased and the following (which include the $10 deductible amount) are representative.

Procedure	Connecticut Contract	Preferred Contract
Gall Bladder	25	20
Gastro-intestinal and Gall Bladder	50	45
G-I, G-B and Colon	60	55

B. Why were Service Benefit Levels Increased?

Fees for the present Preferred Contract, which have been in effect for the past four years, are now considerably below what they should be.

It probably will be at least two years before the new contract is widely sold in Connecticut and by that time, the Preferred Contract fees will be six years old.

SERVICE BENEFIT INCOME LEVELS

Individual	$5,000
Husband and Wife	$6,000
Family	$7,500

To secure the most satisfactory increase in professional fees, it seemed advisable to set the new Service Benefit levels at $5,000, $6,000 and $7,500 rather than at any intermediate position which would not have permitted a proper increase in professional fees. It takes well over a year to develop a new contract and, as stated above, at least two years to have it widely introduced over the State. It seemed best to set new Service Benefit levels that would be satisfactory to our members for a much longer period than would income levels set at an intermediate position such as $6,000 Family.

THE FACTS REGARDING CURRENT SERVICE BENEFITS

There have been comments by Participating Physicians that current Service Benefit income levels are so high that their practice is almost entirely on a fixed fee basis. Some also feel that with the increase of Service Benefit levels almost their entire practice will be involved in Service cases alone. It is obvious that the extent to which the practice of an individual physician comes under Service Benefit income levels depends upon (1) the number of his patients who are CMS members, (2) the wage scale of his local area, and (3) the type of his professional practice.

When it is considered that slightly less than half of the population of Connecticut are covered by CMS and the contractual Service Benefits delivered by Participating Physicians are just barely more than half of the paid claims, it is difficult to support the contention that any considerable number of physicians are seriously handicapped financially by the fixed fee provision of the Service Benefit contract. In any case, all routine CMS payments are promptly made and with each new contract developed, in more realistic amounts in relation to the general economy.

While 68 per cent of all CMS claims were paid as Service Benefits in 1957, 16 per cent of this figure were those cases in which the Participating Physician *voluntarily* accepted the CMS fee as his full payment when the member's income did not entitle him to Service Benefits. Thus, the actual Service Benefits contractually delivered in 1957 was 52 per cent.

The figure of 52 per cent contractual Service Benefits represents all services provided by the CMS contracts. Statistical studies indicate that this figure is attained largely through the influence of *radiological claims which are almost entirely accepted on a Service Benefit basis.* Without the effect of radiology-Service Benefit claims, it is apparent that a 50 per cent Service Benefit claim rate would not be attained.

All statistics indicate that the new Service Benefit income levels are not unrealistic in consideration of the times. The increase in the number of claims paid on a Service Benefit basis above the minimum 50 per cent level is provided voluntarily by Participating Physicians. On the basis of the past experience and present position, there is no evidence that the new Service Benefit income levels will produce contractual Service Benefits in more than 65 per cent of CMS payments. The necessity to increase professional fees above the present Preferred Contract level is real and will be accomplished by the Connecticut Contract.

C. Equivalent Full Payment

Of all Doctors of Medicine practicing in the State of Connecticut, 2946 (over 90 per cent) are currently Participating Physicians in Connecticut Medical Service, Inc. Participating by a physician indicates acceptance of the CMS fee as a reasonable charge to the Member when his annual income is within the limits stated in the contract. Under Equivalent Full Payment, members who have professional services provided by Connecticut Physicians who do not participate in CMS will have an opportunity to have the CMS payment made in the same manner as is the Service Benefit payment to Participating Physicians. That is, when a member's income level is such that he would be entitled to Service Benefits for professional services rendered by a Participating Physician, and he fulfills the other criteria required by the contract, he will have an opportunity to indicate these facts on his Statement of Claim to CMS

> for the professional services of a non-Participating Physician. The claim will be processed by CMS in the same manner as is a claim for services of a Participating Physician. If the income level of the member is less than the amount stated in the contract and if he has fulfilled the other criteria required, the CMS payment will be made to the member as an Equivalent Full Payment. That is, on the voucher of the payment check to the member, it will be stated that payment is being made in the amount which "would be accepted as full payment by a Participating Physician" had he rendered the professional services covered by the claim.
>
> Equivalent Full Payment does not mean that the non-Participating Physician cannot make any charge he wishes to the patient, but it does mean that the patient will be advised as to what is a reasonable fee for a professional service. No benefits from the Medical Catastrophe Expense Benefits Contract are available to the member to meet charges of the non-Participating Physician in excess of the Equivalent Full Payment amount. In other words, if the non-Participating Physician's additional charges are to be paid, they must be paid by the patient himself.

On many occasions in the past eight years, CMS members have stated that they were unable to understand why they should have to pay charges in addition to the fees provided by CMS when their income was such that they were entitled to Service Benefits just because their doctor was a non-Participating Physician. It was pointed out by CMS that participation is entirely voluntary and that this Corporation has no jurisdiction over charges made to members by non-Participating Physicians. Continued study of the problem, however, established the fact that the prerogative of the non-Participating Physician to receive additional charges for his professional services rendered to an eligible Service Benefit member resulted in a serious financial disadvantage to the Participating Physician, by reason of his participation. It was the consensus of the Professional Policy Committee that, with over 90 per cent of all physicians in practice participating in CMS and accepting the CMS payment to the Service Benefit patient as a "reasonable" charge for the professional service, this majority opinion automatically classifies charges over the CMS payment as being in excess of "reasonable". CMS fees have never been represented as indicating the full value, cost or worth of a professional service, but only a "reasonable" charge for a service to a member whose annual income was less than the limits stated in the contract.

Professional Services Covered By Medical Catastrophe Expense Benefits Policy GM 1370

Medical Catastrophe Expense Benefits Policy will provide supplementary (not parallel) coverage of professional services of Doctors of Medicine which are included in the Connecticut Contract; it will provide coverage of all professional services rendered which are not provided in the present CMS contract (medical, office and house calls, consultations, concomitant medical care during the after-care period following surgery for which CMS makes payment) and all professional services required by the patient after the liability of CMS has been fully utilized in accordance with the deductible and co-insurance provisions of the Policy.

It should be noted that all services provided by the Medical Catastrophe Expense Benefits Policy will be on an INDEMNITY (*not Service Benefit or Equivalent Full Payment*) basis; it is expected, however, that physicians' charges applicable to the Medical Catastrophe Policy will be realistically related to the income status of the patient.

A. Determination of Reasonability.

The Connecticut General Policy contains two provisions which were essential to accomplish integration. These are:

1. A specific exclusion of coverage of expenses in excess of those which are determined to be reasonable by the CMS Professional Policy Committee.
2. A policy statement that, "The opinion of the Professional Policy Committee of Connecticut Medical Service, Inc. as to whether or not expenses arising from charges made by a legally qualified physician or surgeon for professional services are necessary and reasonable, shall be conclusive."

The question of what constitutes a "reasonable" fee has long troubled individual patients, insurance companies, and all organizations who make payment for professional services. In assuming the responsibilities of such determinations under the integration of the Connecticut Contract with the Medical Catastrophe Expense Benefits Policy of Connecticut General Life Insurance Company, it was the consensus of the Professional Policy Committee that such determinations would be made on exactly the same basis as if CMS were writing a major medical expense-type contract on an indemnity basis.

The significance of these provisions of the Connecticut General Policy cannot be minimized. To our knowledge, they represent the first instance in which a major insurance company has voluntarily entrusted the amount of payment of its benefits to an agency not employed by the company. In this instance the agency is the CMS Professional Policy Committee composed of twelve physicians who practice medicine in Connecticut. It would be difficult indeed to think of a more practical manner in which a lay corporation could demonstrate its confidence in the medical profession. The Professional Policy Committee, in turn, has agreed to accept the responsibility of applying the same policies which govern the CMS contracts to the professional services which will be covered under the Connecticut General Medical Catastrophe Expense Benefits Policy.

There is no intention on the part of either Connecticut Medical Service or Connecticut General Life Insurance Company to interfere with the patient-physician relationship, to control any aspect of the practice of medicine, or to determine the manner, or place, in which professional services of physicians may be rendered.

B. The Necessity for an Integrated Plan

The primary objective of integration is to better serve the prepaid medical care and health insurance needs of the public. *It is important to note that the Connecticut Contract has been approved by the Insurance Commissioner only as a CMS contract. While the Insurance Department is fully informed as to the purposes of integration, it has expressed no opinion regarding the integration agreements which have been mutually accepted by Connecticut General Life Insurance Company and Connecticut Medical Service, Inc., other than to give separate approval of the Connecticut General Policy as suitable for issue in this State.*

CMS with its Connecticut Contract will limit its coverage to the professional services of Doctors of Medicine and provide so-called "first dollar" coverage of basic professional services of Doctors of Medicine which can be provided without the requirements of over-all deductible amounts or coinsurance. This coverage on a Service Benefit or Full Payment basis can be accomplished more effectively by CMS with its non-profit operation. Connecticut General Life Insurance Company on the other hand, will be in a position to provide not only the extended benefits of professional services and ancillary care required for long term illnesses and disabilities, but also other types of insurance coverage such as group life and accident and health, all of which are prime interests of the insurance company.

To safeguard the interests of Participating Physicians from being at a financial disadvantage by reason of their participation as outlined above under Paragraph C, it was necessary that the Medical Catastrophe Expense Benefits Policy integrated with the Connecticut Contract contain an exclusion provision of benefits for expenses in excess of those paid by CMS on a Service Benefit or Equivalent Full Payment basis. This Connecticut General was willing to do.

In turn, for this protection afforded the Participating Physician and safeguarding the patient, the Professional Policy Committee agreed to provide its opinion as to reasonability of charges by physicians applicable to benefits provided by the Connecticut General Policy.

This pattern serves the mutual interest of the medical care plan, the insurance company, the patient, and the physician. It would be unrealistic to suppose that the integrated plan concept can immediately be brought to its highest potential. It is anticipated that the practical situations which develop will create many problems to which solutions must be found. We are so certain, however, of the many advantages which will accrue to all concerned through integration of health care contracts and policies that we do not expect to find the problems of the future any less soluble than have been those of the past. We must, nevertheless, prove the practicality of an integrated plan on the basis of day-by-day experience.

The responsibilities which CMS has undertaken in agreeing to determine reasonability of professional fees applicable to a major medical expense type contract written for integration with the Connecticut Contract and the provisions of the Connecticut General Policy, which accepts the decisions of the CMS Professional Policy Committee in the determination of its liability, are extremely significant. Each of the respective responsibilities were not lightly undertaken. Each Corporation agrees that we "must learn to walk before we run". It is for these reasons that the initial efforts of Connecticut Medical Service in selling its Connecticut Contract for integration, will be with the Medical Catastrophe Expense Benefits Policy which Connecticut General has developed solely for that purpose. As soon as underwriting experience of the Connecticut General Policy and the Connecticut Contract are found to be satisfactory, Connecticut Medical Service will be prepared to make its Connecticut Contract available for integration with any company within the insurance industry which wishes to do so, provided that the insurance companies are willing to include in their policies the same contractual provisions regarding availability of covered expenses as are included in the Medical Catastrophe Expense Benefits Policy of Connecticut General Life Insurance Company. The contractual provisions referred to are those stated under paragraph A above.

The Board of Directors and the Professional Policy Committee of CMS have agreed that it is only on this basis that CMS is willing to assume the responsibilities involved in the integration of its contract with a health insurance policy.

Conclusion

The Connecticut Plan—Integrated provides for independent underwriting of basic medical care benefits by a medical society sponsored Blue Shield Plan and a major medical type health insurance policy of an insurance company. The benefits of the separate coverages are, however, closely coordinated to effect very complete coverage for enrolled groups holding both contracts.

The arrangement of fee schedules in the Blue Shield contract and the professional policies which will govern them are under the control of the practicing physicians who participate in the plan. The Professional Policy Committee of CMS will provide adjudication of all professional problems of their colleagues and will determine when required the reasonableness of fees for professional services.

The success of the integrated plan involves complete and mutual confidence by the public, the physician, the prepaid medical care plan, and the insurance company, with the integrity of the physician, the keystone of the entire structure. Professional fees must be reasonable for the patient and realistic for the physician in terms of the general economy of the community.

NEWS FROM WASHINGTON

Strong Bid Made on Hill for Jenkins-Keogh Bill

The professions made a convincing case for tax-deferred pension privileges for the self-employed at Congressional hearings recently. Enactment of Jenkins-Keogh bill (HR 9-10) was urged not only on basis of equity and fairness but as a career incentive that would encourage more young people to enter vocations of science and engineering. The latter point was stressed particularly by American Dental Association and by National Society of Professional Engineers. Their testimony came from Dr. Floyd Pillars, Des Moines, and Robert C. Vogt, Cincinnati.

Vogt also was one of four witnesses representing American Thrift Assembly, whose testimony supported the bill in behalf of a score or more professional, business and trade associations. Separate statements were filed with House Ways & Means Committee by AMA, American Osteopathic Association and American Veterinary Medical Association.

The American Medical Association has raised the possibility that Jenkins-Keogh legislation could help solve the problem of maldistribution of physicians. The prospect was called to the attention of members of the House Ways and Means Committee which is holding tax hearings by Dr. F. J. L. Blasingame, general manager of the AMA. Bills provide tax deferment of money paid into annuity plans until retirement. Since budget balancing will not be an absolute *must* in 1958, chances appear brighter for a tax cut and this in turn improves outlook for Jenkins-Keogh bill.

Social Security

In *S. 3086* Senator Proxmire (D., Wisc.) would liberalize benefits and increase taxes under the social security program and set up a new system of free hospitalization of the aged who are covered by OASDI. Wage base to be taxed would be raised from $4,200 to $7,500, and the monthly OASDI tax increased on a gradual scale until by 1975 the employer and employee each would be paying 5 per cent and the self-employed 7⅛ per cent. The bill would also eliminate the age 50 requirement for disability payments, raise the permissible annual earning rate to $1,500, and set a premium on deferment of retirement.

Hospitalization would be offered any individual entitled to OASI benefits and his dependents (and dependents of those getting disability payments) for 60 days per year, but not for tuberculosis or mental conditions. Except in emergencies, only hospitals that had entered into a fee agreement with the Department of Health, Education, and Welfare would be eligible to receive these patients. Medical care would be limited to "such . . . as is generally furnished by hospitals as part of hospital care for bed patients. . . ."

Social Security a Tax, Not Insurance, Schottland Says

Representatives of major national organizations dealing with health and welfare were reminded recently by the head of the Social Security Administration that social security, contrary to popular concept, is a tax rather than an insurance program in the usual sense. Charles Schottland, social security administrator, spoke at a meeting sponsored by a non-profit group, Social Legislation Information Service. Heads of various voluntary groups dealing in this field were present to get a briefing from Health, Education, and Welfare officials on their plans for the next year.

Commented Mr. Schottland in answer to a question: Congress, through its power of taxation, calls the signals on the amount of tax and the amount of benefits to be given persons covered under social security. The inference seemed to be that if any amendments are made this year, the initiative will not come from HEW.

Questioning from the audience disclosed an interest in possible lowering of the medical standards for determining disability under both the disability freeze and disability cash payments programs on the theory standards were too restrictive. The questions were interesting in light of SSA figures released during the conference on the number of denials for disability for failure to meet medical standards—80 per cent of the 320,000 who had failed to win certification. At year's end, SSA had made final determination on 690,000 of 1 million who had applied; 370,000 had been certified.

Other social security highlights: (1) About 11 million persons are now receiving monthly social security benefits; 65 per cent of all over 65 are now drawing old age and survivors benefits or will be able to draw them when their earnings decrease; by 1980, the proportion of aged population eligible for benefits will be 85 per cent, and by the year 2000, 94 per cent. (2) The Disability Trust Fund from which come payments to disabled 50 or over had a year-end balance of $640 million and mid-year it will be slightly over $1 billion. (3) SSA had underestimated both the number of women who would retire at age 62 and self-employed farm operators who would come under the program as a result of the 1956 amendments, a development that put social security expenditures ahead of receipts earlier than anticipated.

Social Security Operation Should Be 'Appraised as a Whole'

Mr. Eisenhower would have the Congress go slow in making any further changes at the present time in social security, and he believes action should be taken to return to the States more responsibility for providing public assistance. His message says:

> "Although Federal old-age, survivors, and disability insurance provides an increasing share of economic security for the aged, the dependent, and the disabled, the Federal Government's expenditures for public assistance continue to mount because of the successive amendments increasing the Federal matching share.
>
> "These programs are now well established and the individual States have gained experience as to appropriate levels of assistance. In line with my belief that the States should have greater responsibility for programs of this nature, proposals will be sent to the Congress for modernizing the formulas for public assistance with a view to gradually reducing Federal participation in its financing. This legislation should be made effective starting in 1960 to assure that the States will have adequate opportunity to adjust their finances and their programs, thus preventing an adverse impact on needy recipients."

Adjustments Proposed in Veterans Administration Programs

Mr. Eisenhower notes that under existing laws the nation is faced with large and increasing costs for veterans benefits. He thinks something can be done about it:

> Costs for pensions for needy veterans will increase sharply. These pensions meet needs not related to the veteran's service, but to hazards to health and income that generally grow with increasing age. Fundamental changes have taken place in our society . . . which require us to reconsider the laws providing veterans benefits which now overlap other growing public benefit and welfare programs. . . . A message will be sent to the Congress at an early date (containing) . . . recommendations for specific adjustments and improvements in the veterans programs.

Taxation

Senator Frear (D., Dela.) would allow an additional exemption of $600 for a taxpayer, his spouse or dependents if they are attending an educational institution above the secondary level at least four months in the year. Additional exemptions for medical expenses also would be allowed for those qualifying as a student under this bill. The Frear bill is S. 2938. . . . A similar bill, H. R. 10026 by Rep. Sikes (D., Fla.), would allow an additional $600 exemption for each child who is a student above the twelfth grade. . . . In H. R. 9971, Rep. Ikard (D., Texas) would allow deduction from taxable income of money paid to institutions of higher learning for tuition, fees or books on behalf of the taxpayer or his dependents. . . . Rep. Teller (D., N. Y.) has the same idea in H. R. 10030, which would credit all additional expenses above the present $600 exemption for a taxpayer's dependent who is attending college.

Some New Regulations for Physicians With Medicare Patients

Office for Dependents Medical Care has some new and clarifying regulations dealing with medicare patients and ancillary medical personnel. They are:

HOSPITAL ACCOMMODATIONS

Dependents are eligible for semiprivate accommodations (two or more beds) and pediatric cases may be handled in wards. For private accommodations, the following should be kept in mind: (1) when this arrangement is believed necessary by the doctor, the patient pays 25 per cent of the difference between the private room fee and the weighted average of semiprivate, (2) when the patient or sponsor only insists on private room, the patient pays the full difference, and (3) when the hospital has only private rooms, the medicare patient pays 10 per cent of the daily charge for the room, or the total daily hospital charge, less $15, whichever is the greater.

INDEPENDENT ANCILLARY PERSONNEL

Nurse anesthetists and physical therapists who work on an independent basis can now be paid direct if (1) the attending physician certifies on form DA-1863 that the services were authorized by him and (2) the amount charged does not exceed the normal charge to the public having an annual income of $4,500.

MATERNITY CASE FEES

If pregnancy terminates in premature delivery, the doctor is entitled to full fee if he has rendered continuous antepartum care beginning in the first eight weeks of pregnancy. Should a maternity patient consult a physician in a locality away from that of her attending doctor or clinic, the doctor consulted is entitled to fee for a home or office visit.

Administration Offers Pay Raise Bill for VA Medical Personnel

The Veterans Administration has drafted and sent to Congress legislation raising the pay scale of physicians and other personnel in the VA Department of Medicine and Surgery. The administration proposal would raise pay in a range from 6 to 18 per cent, with the higher salaried getting the larger percentage increase. VA estimates its proposal would cost another $10 million a year, as against $6 million for a somewhat similar bill by Rep. Long (D., La.). Unlike the Long bill which is now pending in the House, the administration draft does not elevate optometrists to the same professional status as physicians within VA. In the last session, the VA indicated support of pay raises for medical personnel, but the Budget Bureau did not favor the idea then. Meanwhile, a House Veterans Affairs Subcommittee has approved a bill designed to consolidate all VA laws and regulations, following consolidation last year of those dealing with compensation, pensions, hospitalization and burial benefits. Disabled American Veterans, Amvets, the Veterans of Foreign Wars and the American Legion all favor the bill.

Ulcerative Colitis Foundation Formed

With the encouragement of the National Institute of Arthritis and Metabolic Diseases, a new medical research foundation has been organized to promote research in ulcerative colitis. Dr. Joseph B. Kirsner of the University of Chicago, chairman for the conference where the new project was announced, said it was "an essential step toward finding the cause and cures for this dreadful disease". Miles Fiterman, Minneapolis businessman who heads the foundation, said plans are to provide researchers with "continuing and guaranteed funds" for research. He explained that one of the foundation's purposes is to "provide a climate for research that will attract outstanding men so that more progress may be made in solving the problems of ulcerative colitis just as progress had been made in recent years in the fields of polio and heart disease. The foundation's medical advisory board includes Drs. Kirsner, Walter L. Palmer of the University of Chicago, Jacob A. Bargen of the Mayo Clinic, Julian M. Ruffin of Duke University and president-elect of the American College of Physicians, Steward G. Wolf, Jr., of the University of Minnesota and Professor Howard P. Lewis of the University of Oregon.

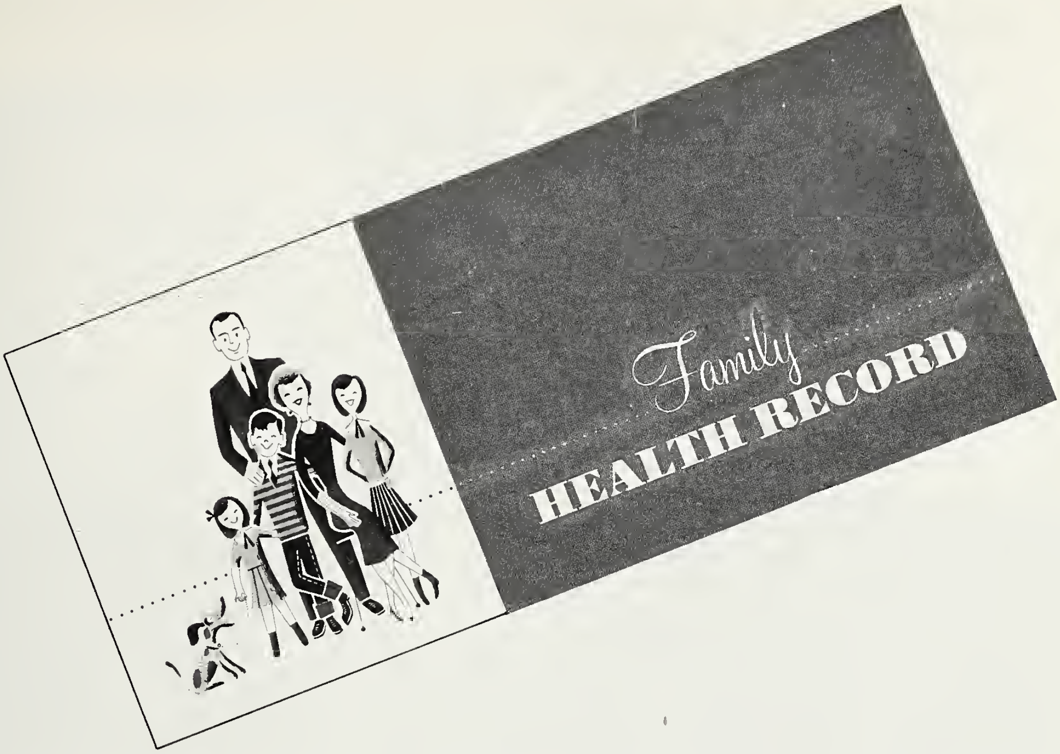
PHS Reports on Poliomyelitis for Last Year

A Public Health Service roundup on poliomyelitis statistics for 1957 shows 5,894 cases (all types) compared with 15,400 in 1956 and 29,270 in 1955.

Six Named to Health Resources Advisory Committee

The six members of the Health Resources Advisory Committee under chairmanship of Dr. Elmer Hess, past president of the AMA, have been appointed by Gordon Gray, director of the Office

(Continued on Page 228)



The Family Health Record has been designed to encourage the keeping of basic health information. It provides space for recording dates of immunizations, illness, hospital stays, health insurance data and other useful information.

A well-kept record can be helpful when starting a medical history—and the information can often be used for insurance, camp, school, or other purposes, thus helping to reduce office phone calls.

Use the coupon below if you would like a half-dozen copies of the record to test patient reactions.

CONNECTICUT STATE MEDICAL SOCIETY
160 St. Ronan Street
New Haven 11, Connecticut

Please send six copies of the Family Health Record.

Name ....

Address ....

....

PUBLIC RELATIONS

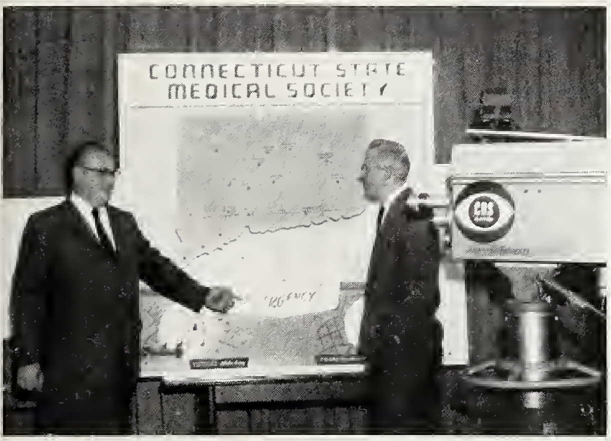
COMMITTEE ON PUBLIC RELATIONS

Harry C. Knight, Middletown
Chairman
Harold A. Bergendahl, Norwich
James C. Canniff, Torrington
E. Tremain Bradley, South Norwalk
Amos E. Friend, Manchester
John L. Phiffer, Rockville
Ralph L. Gilman, Storrs
James H. Root, Jr., Waterbury
William A. Richardson, Noroton
Associate Member

CONNECTICUT HEALTH LEAGUE ELECTS OFFICERS FOR 1958

Plans for the 1958 program of the Connecticut Health League were discussed by the new officers of the organization following their election at a meeting in New Haven, January 15. Dr. Reginald C. Edson, newly elected president, who is medical director and superintendent of Cedarcrest Hospital, Newington, is shown in this picture second from right. Dr. Harold S. Barrett, right, deputy state health commissioner, Hartford, was re-elected secretary-treasurer. Mrs. Douglass O. Burnham, center, Watertown, and Dr. James R. Miller, left, Hartford, were elected vice presidents. The League comprises representatives from more than 25 major health agencies.

More Than 160 Physicians Participate in Television Programs



In this studio picture, Dr. Harry C. Knight, Middletown, explains operation of the 18 emergency medical call plans sponsored by medical associations to Robert Wakeley, moderator for the "Accent on Living" series sponsored by the Connecticut TV Committee for Health Education. The photo was taken during a half-hour telecast from the studios of WHCT—Channel 18, Hartford.

More than 160 physicians participated in educational telecasts in the "Accent on Living" series sponsored by the Connecticut TV Committee for Health Education from July 1954 to January 1958.

A special report on committee operations indicates that the 164 physicians who took part in the productions formed the largest single group in the total of 379 participants. The next largest group is classified as 55 private citizens, while 21 nurses formed the third largest group.

Other participants included 14 executive secretaries, 12 health educators, 8 social workers, 7 each in groups of physical therapists, nutritionists, school teachers, and hospital administrators. Groups of six or less participants represented the following occupations: engineers, statisticians, insurance representatives, Red Cross workers, public relation directors, dentists, recreation supervisors, speech consultants, sociologists, manufacturers, occupational therapists, rehabilitation counselors, sanitarians, state police, psychologists, school administrators, and pathologists.

The committee, now in its third year of continuous TV production, comprises representatives of leading health organizations in the state, including the State Medical Society, State Department of Health and the State Department of Mental Health, the Connecticut Division of the American Cancer Society, Connecticut Chapter of the Arthritis and Rheumatism Foundation, Connecticut State Commission on Alcoholism, Connecticut Association for Mental Health, Connecticut Heart Association, Connecticut Hospital Association, Connecticut League for Nursing, Connecticut Society for Crippled Children and Adults, Connecticut Tuberculosis Association, Connecticut State Tuberculosis Commission, and the Connecticut Chapter of the National Society for the Prevention of Blindness.

Productions of the committee are currently being telecast in a half hour program each Saturday, 4:30 p.m., from the studios of WHCT-Channel 18, Hartford. Subjects for productions through April 26 include Effects of Noise, March 8; Human Eye, March 15; Crisis: Chronic Disease, March 22; Question Box-Heart, March 29; Poison Control, April 5; Rehabilitation-Adult Diseases, April 12; Cancer, April 19, and Question Box-Alcoholism, April 26.

New Income Tax Guide for Physicians

It has been announced by C. Joseph Stetler, director of the Law Department of the American Medical Association, that the department has prepared a new tax guide for physicians. Entitled *The Federal Income Tax Guide for Physicians,* the timely new booklet has been compiled from court decisions as well as rulings, regulations and publications of the Internal Revenue Service.

Mr. Stetler has emphasized that the booklet should not be considered a substitute for the services of a personal tax adviser, its purpose being to give physicians a ready index of rights and obligations under federal income tax laws. Copies of the booklet may be obtained by writing to the AMA Law Department.

'Today's Health' Magazine Being Reorganized

Today's Health, the popular health education magazine published by the American Medical Association, is being changed in format and content under the direction of James M. Liston, its new editor, who was recently appointed following approval of a reorganization plan by the AMA Board of Trustees. During the next three months *Today's Health* will appear with a new cover layout, a special news page, new editorial style and broader editorial base, and a completely new inside format.

The magazine now has its own Advertising Review Committee comprised of Leo E. Brown, AMA public relations chairman; Dr. Austin Smith, editor of the *Journal of the AMA*; C. Joseph Stetler, director of the Law Department; and W. W. Heatherington, executive publisher.

A recent report indicated that 1957 was a good year for the publication. Advertising linage increased more than 30 per cent, 1956 advertising was renewed at a better than 90 per cent rate, and 51 new advertising accounts were received. Circulation continued to grow and passed the 400,000 mark for 9 of the 12 issues.

New Britain Medical Society Presents Community Award

The New Britain Medical Society recently presented its first community citation to Miss Florence M. Fitzgerald, chief medical librarian at the New Britain General Hospital. The citation was presented at the annual dinner of the Society in recognition of Miss Fitzgerald's "long and faithful service to aid general health practices" and her cooperation in aiding physicians. The citation inaugurates a program to make similar awards each year to one or more citizens who have devoted unusual time and effort to community health.

Naugatuck Valley Medical Society Advances Community Polio Program

The Naugatuck Valley Medical Society has presented first aid kits to service organizations who participate in first aid training in valley communities. The kits were purchased with funds realized from the nominal charges at polio vaccine stations operated under the direction of the Society. A similar program for the third series of inoculations is being planned for next fall and will include children and young adults from six months to 20 years of age.

"Health Magazine of the Air" Introduced As New Radio Feature

The *Health Magazine of the Air,* a new radio series based on current articles published in *Today's Health* was inaugurated in February by the Bureau of Health Education of the American Medical Association. The new 15 minute series features H. V. Kaltenborn, veteran newscaster and radio TV commentator, and W. W. Bauer, M.D., director of the A.M.A. Bureau of Health Education. In addition to comments on articles in *Today's Health,* which is published by the A.M.A. with a monthly circulation of more than 100,000 copies, the recordings will bear on the reverse side spot announcements by stage personalities who contribute their time in the public interest.

More than 400 of the new transcriptions have been shipped to radio stations in Connecticut and other States. Distribution will be repeated the first week of each month through December for immediate broadcast. The present selection of stations has been based on those which have previously used A.M.A. radio transcriptions, but local medical societies may contact the Bureau of Health Education for information concerning additional outlets.

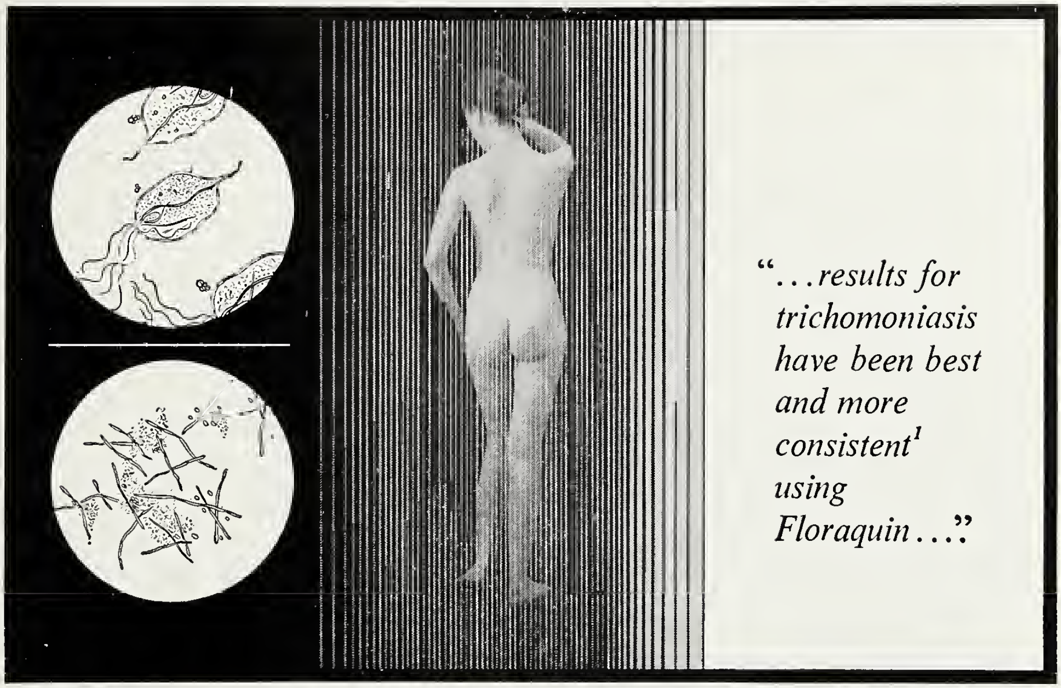
News From Washington

(Continued from Page 224)

of Defense Mobilization. The committee advises the ODM director on health and medical problems as they pertain to mobilization in time of war or other emergency.

Members are Dr. William B. Walsh of Washington, assistant professor of medicine, Georgetown, and member of the AMA Committee on Military Medical Affairs; Dr. George Otis Whitecotten, Oakland, Calif., medical director of the Highland Alameda County Hospital; Dr. Franklin Yoder, Cheyenne, Wyo., director, State Department of Health and immediate past president of the Association of State and Territorial Health officers; Dr. Mary Louise Gloechner, Conshohocken, Pa., a past vice-president of Pennsylvania Medical Society; Harold W. Oppice, DDS, Chicago, past president, American Dental Association; Frances Graff, RN, Grand Rapids, Mich., director, School of Nursing and Nursing Service, Blodgett Memorial Hospital, and past president, Michigan League of Nursing Education.

EFFECTIVE, DEPENDABLE THERAPY FOR VAGINITIS


"...results for trichomoniasis have been best and more consistent[1] using Floraquin...."

Floraquin® eliminates trichomonal and mycotic infection; restores normal vaginal acidity

Leukorrhea is by far the most frequent symptom of vaginitis; trichomonads and monilia are the most common causes. Many authors have reported[2] trichomonal protozoa in the vagina of 25 per cent of obstetric and gynecologic patients. Increased use of broad spectrum antibiotics has resulted in a sharp rise in the incidence of monilial infections.

Floraquin effectively eradicates both trichomonal and monilial vaginal infections through the action of its Diodoquin® content. Floraquin also furnishes boric acid and sugar to restore the normal vaginal acidity which inhibits pathogens and favors the growth of protective Döderlein bacilli.

Pitt[1] recommends vaginal insufflation of Floraquin powder daily for three to five days, followed by acid douches and the daily insertion of Floraquin vaginal tablets throughout one or two menstrual cycles. G. D. Searle & Co., Chicago 80, Illinois. Research in the Service of Medicine.

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1. Pitt, M. B.: Leukorrhea. Causes and Management, J. M. A. Alabama *25*:182 (Feb.) 1956.
2. Parker, R. T.; Jones, C. P., and Thomas, W. L.: Pruritus Vulvae, North Carolina M. J. *16*:570 (Dec.) 1955.

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Artists Attention!

Exhibits will be welcomed from members of the Connecticut State Medical Society, members of the Woman's Auxiliary, and their children for the Annual Exhibition of the Connecticut Physicians Art Association. It will be held April 29, 30 and May 1 in Rooms 219-220, Stratford High School in conjunction with the Annual Meeting of the Connecticut State Medical Society. Oil, water color, tempera, pastel, black and white, sculpture, ceramics, etchings and photography may be submitted. Pictures should be framed, ready for hanging. Entry blanks will be mailed in March to former exhibitors. Additional blanks and further information regarding hanging date and entry fee may be obtained from your county chairman.

John M. Freiheit, M.D., 85 Grove Street, Waterbury, president, Connecticut Physicians Art Association.

Mrs. Orvan Hess, 29 Old Orchard Road, North Haven, co-chairman, Woman's Auxiliary.

Mrs. Anthony Appuzo, 17 Villa Avenue, Bridgeport, co-chairman, Woman's Auxiliary.

Mrs. C. King Hamilton, Brookfield Center—FAIRFIELD COUNTY

Mrs. Ernest Rosenthal, 17 Pine Road, West Hartford—HARTFORD COUNTY

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Mrs. Thomas Danaher, 445 Prospect Street, Torrington—LITCHFIELD COUNTY

Mrs. James Harkins, 61 Lincoln Avenue, Norwich—NEW LONDON COUNTY

Mrs. Ernest Bolt, Jr., 132 Mansfield Avenue, Willimantic—WINDHAM COUNTY

A.M.A. Drafts Model Law to Cut Poison Deaths

After a 15 months' study, the A.M.A. committee on toxicology has formulated and announced a broad and encompassing model law for the precautionary labeling of hazardous substances in commercial, household, and industrial chemical products.

Speaking before a section of the New York Bar Association on January 29, Bernard E. Conley, Ph.D., secretary of the A.M.A. committee, said the proposed legislation is intended as a model for uniform laws to require declaration of hazardous ingredients and warning statements on the label

(Continued on Page 253)

Social Security

In the first five months of the 85th Congress, the lawmakers introduced more than a hundred bills designed to broaden the Social Security Program in one way or another. Such open-handed proposals invariably win acclaim, and more tangible rewards at the polls, for their sponsors. But the alarming fact is that years ahead of schedule, the growth of the Old Age & Survivors Insurance Trust Fund has come to an end. At the moment it is paying out more than it is taking in. This unexpected deficit should serve as a red flag to the Treasury, the taxpayer, and all those who are looking forward one day to receiving retirement checks of their own. However generous its motives, even a federal pension fund cannot go on incurring obligations which exceed its resources.

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A.M.A. Has New General Manager

On January 1, 1958 Dr. George F. Lull retired as secretary-general manager of the American Medical Association after serving in this dual capacity for almost eleven years. He will continue as secretary of the Association and will assume a new office, that of assistant to the president.

Dr. F. J. L. Blasingame

The new general manager of the A.M.A. is Dr. F. J. L. Blasingame of Wharton, Texas who will assume the overall administration of the affairs of the Association. "Bing" Blasingame has a host of friends, not only in Texas but throughout the entire United States. He has been an active leader in medical affairs at both state and national levels, serving as a trustee of the A.M.A. since 1949 and as president of the Texas Medical Association in 1955. He was a delegate from the American Medical Association to the World Medical Association at its recent session in Istanbul, Turkey. In Wharton his fame as an accomplished surgeon is well deserved. He will be sorely missed by his patients and colleagues.

Those who know "Bing" congratulate the Board of Trustees on their selection of a successor to George Lull. With the increase in the activities of the American Medical Association the addition to the team of a devoted physician with the vigor resulting from a healthy body and a keen mind is certain to strengthen the position of American medicine.

Medicine, Optometry, and the Public Welfare

The National Medical Foundation for Eye Care has recently issued a pamphlet which contains reports based upon the same factual material which served as the basis for the introduction and adoption of a series of resolutions presented by the Section of Ophthalmology of the American Medical Association to the AMA House of Delegates at its June 1955 meeting. In this publication it is pointed out that attempts to make the optometrist more competent in recognizing ocular diseases by increasing his meager and generalized information on those subjects were understandable and laudable. For obvious reasons it has been concluded that it is not in the public interest for physicians to attempt to educate optometrists to recognize, much less diagnose and treat, ocular disease or the ocular manifestations of general disease. The conclusion is reached that teaching optometrists is unethical.

Resolutions were adopted to the effect that in the public interest suitable criteria for the referral of patients by the optometrist to the ophthalmologist should be established, that an ophthalmologist in accepting such referral accepts the responsibility for determining the future eye care of the patient, and that it is proper for an ophthalmologist to indicate to an optometrist who has so referred a patient, the nature of the condition in general terms, the nature of his interpretation of the condition to the patient, and whether or not the patient has been placed under medical care.

The pamphlet contains in detail four criteria for such referrals, the method for the optometrist to follow in such referrals, as well as the response of the ophthalmologist as stated above.

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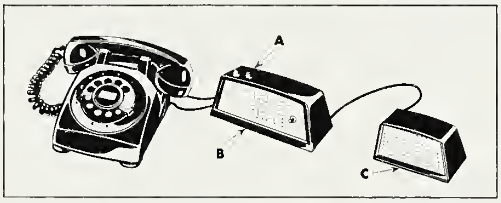

You just press a button (A) and your voice is picked up by a microphone (B). The voice of the person you're speaking with comes through a small desk-top loudspeaker (C). (When you want privacy, the phone can be used in the conventional way.)

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LETTERS TO THE EDITOR

A Look at State Welfare Department's Billing Procedures for Physicians

From earliest antiquity our profession has undertaken to provide our services to all members of the community without discrimination regardless of the individual's ability to pay for these services. This has been the basis upon which we were privileged to charge commensurate fees to those financially able to pay for our services.

In recent years, because the expense of medical care has increased so greatly, the community has determined that through its government, by taxation, all members of the community should share in compensating the physician for his services to those who personally cannot afford to pay. In so doing the public has refrained from saying that by accepting public recompense for his services to the indigent the physician has forfeited any part of his right to fix his own fees to his private patients. The public has, however, reserved to itself the right to determine the extent to which and conditions under which, from tax funds, they will recompense the physician. In so doing the community has in every instance (in Connecticut) consulted the representatives of organized medicine in the State and sought their recommendations, in a sincere attempt to establish equitable and reasonable fees for the various services furnished. This principle has been accepted by most physicians. The overwhelming majority of all Connecticut physicians, recognizing that only under such publicly established conditions can they receive tax money for their services to the indigent, have either accepted established conditions or carried out their traditional obligation to the indigent by treating them free of charge. A few, failing to recognize their obligation, have refused to accept patients known to be receiving public assistance.

In the administration of public funds, civil servants are required to establish definite procedures to enable them to account to the community for the funds expended. In a medical care program, such accounting must not only insure that the funds are expended in accordance with the law and the above-mentioned standards, but that these funds purchase the highest quality of care to meet the necessary and reasonable medical needs of the recipient.

In our attempt to furnish the required accounting as completely as possible and with the least possible expenditure of public funds for purely administrative purposes, it is increasingly apparent that we have required of our participating physicians a burden of "paper work" which in the opinion of many of them is out of proportion to the benefit derived from the fees which they receive thereby. Many have protested, both personally and through their organizations. Some have ceased to charge the community for their services, a few have even gone so far as to refuse to care for those indigent persons who are receiving State aid, more from a desire to protest what they consider an unreasonable burden than from a desire to deny the unfortunate the benefit of their care.

We who are charged with the administration of public medical care programs for the indigent are not insensitive to these protests. Since first it became evident that the accounting procedures required of physicians were working a hardship to many, we have sought ways of reducing the amount of such nonprofessional work while at the same time accomplishing the accounting required of us without increasing the expenditure of tax money for administration.

We believe we have the anlage of a plan which will eliminate the two most common objections voiced by the profession:

a. The necessity under the present system of writing all information twice for each bill.
b. The requirement for an individual bill for each member of a single family receiving professional service during a given month.

Before this plan can be implemented it must first be perfected and coordinated with Welfare Department staff and State fiscal authorities after which it will be presented in detail to as large a group of the profession as possible for comments and constructive criticism. The final draft of forms and instructions must then be printed and distributed and for this some additional administrative funds may need to be sought.

It is evident from the above that some months will elapse before an acceptable plan can be put into operation. Every effort will be made, consistent with the development of a truly workable procedure, to keep this period to a minimum. Meanwhile your forbearance and cooperation with

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the presently established system is urged. Your services are sorely needed by those aged, blind, disabled and dependent persons receiving State aid and for the children committed to our care. It is our fervent hope that those who have announced their intention of refusing further services to State beneficiaries will reconsider their decision in the light of these people's needs.

The following suggestions are offered in the hope that their observance may ease the load of your paper work and that of the Department and result in fewer delays in payment for your services under the present plan.

1. Submit one monthly bill on Form W-501 for each patient, noting each service rendered that patient during the month as a line item. Make certain that for each line item on the bill there is a certification on Form W-500.

2. Consult the Fee Schedule for Practitioners of the Healing Arts and Allied Professions and be sure each service described follows the wording employed therein and that the charge is in accordance with the Schedule.

3. Where prior authorization for services is required be sure that the yellow copy of the authorization Form W-601 accompanies the bill *or* if authorization is for continued service beyond the month for which billed, that the authorization number (printed in red ink on all copies of Form W-601) appear opposite the authorized service on the bill.

4. Diagnosis code: The appropriate code, 1-47, printed on the reverse of Form W-500, should appear on both certification and bill. Only one code number, that for which the current service is being given, should be noted: e.g., a visit is made to a known diabetic patient for the purpose of treating an upper respiratory infection. List code 26 (upper respiratory infections) rather than 13 (diabetes). Where a service such as immunizations of a healthy person is given, leave code space blank. Refraction may be coded as 16 (eye care). The Welfare Office will accept whatever diagnosis code the physician lists. However, these are to be used for Federal and other studies when sufficient data are accumulated. Care should therefor be taken to record diagnoses specifically and accurately so that the statistics will be valid.

John P. Bachman, M.D.
Medical Director
State Welfare Department

OUR MEDICAL WORLD

British National Health Service

A few months ago there was released an estimate of the total cost of the National Health Service. This was the first time the British government had divulged the figures and they reached the colossal figure of £690 million, an average of £45 per household per annum. This figure includes the total cost to the public, including not only the share falling on the Exchequer, i.e., the taxpayers, but also the expenditure borne by the insurance contributors, the cash payments by patients for pay beds, drugs, etc., and miscellaneous receipts.

Honduras Health Budget

Representative Morano of Connecticut submitted a report in January of this year following a special study mission to Honduras in November, 1957. He appeals to the people of the United States to take more interest in the affairs of the Latin American countries in their fight against communism. It is of some significance that in the budget of Honduras for 1957 out of a total of $42.6 million only $2.2 million were allocated to health.

Heart Association Reaffirms Independent Fund Policy

Reaffirmation of the policy of the American Heart Association to conduct independent fund campaigns rather than participate in United Funds has been voted overwhelmingly by the national Assembly of the Association.

An increasing number of Heart Associations were reported withdrawing from United Funds and community chests, with at least 93 Heart units which participated in federated drives in 1957 conducting independent campaigns in February. Since adoption of the Heart Association policy regarding United Funds in 1955, a total of 171 Heart units have withdrawn from federated drives.

Dr. Robert W. Wilkins of Boston, President of the American Heart Association said that "our experience over the years with United Funds has proved conclusively that the independent Heart Fund campaign is the best way to finance the Heart Association's expanding program of research, education and community service."

NEW BOOKS IN REVIEW

HOSPITAL ACCREDITATION REFERENCES. Chicago. American Hospital Association. 1957. 136 pp.

Reviewed by T. Stewart Hamilton

This small volume is of invaluable aid to hospitals and their medical staffs. The elevation of standards of hospitals and of medical practice in hospitals, so ably carried on by the American College of Surgeons, has of recent years been furthered by its successor in this effort, the Joint Commission on Accreditation of Hospitals.

This book is a compendium of information applying to every department of the hospital. Each chapter, for easy reference, deals with a single department and is divided into three paragraphs; a quotation from the Standards set down by the Joint Commission, a detail of the summary report questions to which the surveyor will seek answers and quotations from correspondence of the Joint Commission on the subject.

As each hospital is surveyed at least every three years, and as the survey concentrates upon the medical staff's activities in the hospital, this volume should prove of great aid to Staff Officers and service Chiefs, not only as they prepare for the survey but during intervening periods as well.

Lucid, concise and important, this volume is a necessary addition to the desk library of every hospital administration and medical staff president.

MY ARABIAN DAYS AND NIGHTS. By Elearnor T. Calverly, M.D. *New York. Thomas Y. Crowell Co.* 1958. 182 pp. $2.95.

Reviewed by Stanley B. Weld

Connecticut physicians will find considerable pride in the accomplishments of one of their own number as portrayed in this account of mission work in Kuwait on the Persian Gulf. Now that Kuwait has become famous (and also wealthy) for its rich oil wells this story will have added interest for layman as well as physician.

It is a simple tale of a dedicated life which answered the call, destined by the choice of her husband to be Arabia. Many a hardy soul has ventured into foreign lands to spread the principles of good hygiene, to relieve suffering humanity, and to carry the spirit of Christ to people shrouded in ignorance. Elearnor Calverly was no exception. The account of her early days in poverty-stricken Kuwait, her first patient, her first operation, the difficulties encountered in reaching the Moslem women—all these are realistically narrated so that when the two room dispensary grew into a small hospital in the course of the 20 years of effort, the reader experiences a sense of joy for the author and pride in her achievement.

Forced to return to the United States because of her husband's health, Dr. Calverly has not forgotten Kuwait. In 1954 she spent two years with her husband in Cairo. While there the present ruler's brother, Shaikh Fehed, arranged for the Calverlys to revisit Kuwait. She still carries on as a lecturer on tropical hygiene at the Kennedy School of Missions of the Hartford Seminary Foundation. Her life is a credit to medicine; her story is a thrilling one.

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SPECIAL NOTICES

11th ANNUAL CONNECTICUT CANCER CONFERENCE FOR PHYSICIANS

WEDNESDAY AFTERNOON, MARCH 19, 1958
12:45—4:30 P.M. HOTEL STATLER, HARTFORD

ADVANCE PROGRAM

Presiding: Robert Shapiro, M.D., Hospital of St. Raphael, New Haven

12:45 REGISTRATION

1:00 CALL TO ORDER
Donald A. Bristoll, M.D., President American Cancer Society, Connecticut Division

1:05 RECTAL BLEEDING—A Symposium
Moderator: William A. Meissner, M.D., Boston
Medical Aspects: Franz J. Ingelfinger, M.D., Associate Professor of Medicine, Boston University School of Medicine
Radiologic Aspects: Robert D. Moreton, M.D., Fort Worth, Texas, Clinical Associate Professor of Radiology, University of Texas School of Medicine
Pathologic Aspects: William A. Meissner, M.D., Assistant Clinical Professor of Pathology, Harvard University Medical School
Surgical Aspects: William C. Bernstein, M.D., Clinical Associate Professor of Surgery, (Proctology) University of Minnesota Medical School

2:30 INTERMISSION

3:00 CONTINUATION OF THE SYMPOSIUM

3:40 OPEN FORUM
Written questions are invited. Question cards will be available at the registration desk.

4:20 CONCLUDING SUMMARY
Robert Shapiro, M.D.

4:30 ADJOURNMENT

Postgraduate Credit: Members of the American Academy of General Practice may receive 3 hours postgraduate credit for attending this conference

Sponsored by
CONNECTICUT STATE MEDICAL SOCIETY
AMERICAN CANCER SOCIETY, CONNECTICUT DIVISION
CONNECTICUT STATE DEPARTMENT OF HEALTH

ENGLISH RADIOTHERAPIST TO SPEAK

At 8:00 P.M., Tuesday, March 11, 1958, M. Lederman will speak on "Radiotherapy in Ophthalmology" in the Radiation Therapy Center at The Hospital of St. Raphael. Dr. Lederman is Associate Radiotherapist at The Royal Marsden Hospital, London, and also serves as consulting radiotherapist for Moorfields, Westminster, and The Central Eye Hospitals.

International Scientific Congress of International College of Surgeons
Los Angeles, California
March 9-14, 1958

Mid Central States Orthopaedic Society
Little Rock, Arkansas
March 20-22, 1958

Aero Medical Association
Washington, D. C.
March 23-26, 1958

American Academy of General Practice
Dallas, Texas
March 24-27, 1958

Congress of International Anesthesia Research Society
New Orleans, Lousiana
March 24-27, 1958

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Postgraduate Course on Pulmonary Function
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Boston, Massachusetts
March 24-28, 1958

COMMISSION ON ALCOHOLISM ANNOUNCES FELLOWSHIP TO YALE SUMMER SCHOOLS

The Connecticut Commission on Alcoholism, through its Executive Director, Dr. Dudley Porter Miller, announces that it will make available to selected candidates eight full fellowships to the 1958 session of the Yale Summer School of Alcohol Studies. This year's session, the sixteenth annual interdisciplinary study of problems of alcohol and alcoholism in society, will be held during the four-week period, June 29 through July 24, 1958.

Candidates for the fellowships must be residents of Connecticut and in a profession or type of activity wherein attendance at the School and the knowledge gained from it are relevant and pertinent to their vocational activities. The Commission is particularly interested in candidates for its fellowships who are frequently confronted with responsibilities for the management and treatment of alcoholics and the problems of alcohol and alcoholism in general. During the past several years, recipients of the Commission's fellowships have included educators, clergymen, probation officers, nurses, social workers, psychologists, health educators and personnel representatives from industry.

Persons wishing to be considered as candidates for a fellowship should make application by April 1, 1958, to Dudley Porter Miller, Ph.D., Executive Director, Connecticut Commission on Alcoholism, 51 Coventry Street, Hartford 12, Connecticut.

COURSE IN RECONSTRUCTIVE NASAL SURGERY

The American Rhinologic Society is cooperating with the Department of Otolaryngology of the University of Cincinnati College of Medicine in presenting a course in "Reconstructive Surgery of the Nasal Septum and External Nasal Pyramid." This course, which has been presented at several university centers in recent years, will be given under the direction of Dr. Maurice H. Cottle and will be held at the University of Cincinnati Medical School and Cincinnati General Hospital from April 12 through April 19, 1958.

The type of Reconstructive Nasal Surgery taught in this course deals primarily in giving better physiological function to the nose than was present before. To accomplish this may require structural changes in the nose with a resulting improved alteration in its external appearance.

This year the course will be conducted in a newly revised manner suggested by Dr. Cottle. The class for concentrated instruction will consist of fifteen new students, and fifteen advanced students who wish to repeat the course in a student capacity. This class, with its teaching faculty, will form an integrated whole of about forty-five doctors, without division into seminars and part-time surgery attendance as was the custom in previous courses.

A new group will be designated as full-time Auditors, and will be composed of those who have already taken a similar course, but wish to participate in lectures and operating room activities. They will be provided with special opportunities, such as evening seminars and workshop sessions on problems of technique and new concepts. Visitors will be welcome as part-time Auditors.

The facilities available in Cincinnati promise pleasant and convenient accommodation for all who will attend.

1958 Industrial Health Conference
Convention Hall, Atlantic City, New Jersey
April 19-25, 1958

Sixth Annual Meeting of American College of Obstetricians and Gynecologists
Hotel Statler, Los Angeles, California
April 21-23, 1958

International Congress of Internal Medicine
Sheraton Hotel, Philadelphia, Pennsylvania
April 24-26, 1958

CONNECTICUT TRUDEAU SOCIETY SPRING MEETING

The spring meeting of the Connecticut Trudeau Society will be held on Thursday, April 24, 1958 at 8:00 p.m. at Cedarcrest Hospital, Newington, Connecticut.

The program will consist of several papers to be presented by members of the Society. Members are invited to submit titles and brief abstracts for consideration by the Program Committee. Presentations will be limited to twenty minutes.

American College of Cardiology
Chase-Park Plaza Hotel, St. Louis, Mo.
May 20-24, 1858

World Congress of Gastroenterology
Sheraton-Park Hotel, Washington, D. C.
May 25-31, 1958

Annual Meeting Connecticut Heart Association
Stratfield Hotel, Bridgeport, Connecticut
June 4, 1958

Principal Speaker: Dr. Robert Wilkins, President, American Heart Association.

ABSTRACTS OF PAPER DUE JUNE 13 FOR 1958 AHA SCIENTIFIC SESSIONS

The 1958 Scientific Sessions of the American Heart Association are scheduled to be held October 24-26 at the Civic Center, San Francisco. Applications are now obtainable for the presentation of papers or for exhibit space by writing to Dr. F. J. Lewy, Assistant Medical Director, American Heart Association, 44 East 23rd Street, New York 10, N. Y.

Papers intended for presentation must be based on original investigation in or related to, the cardiovascular field. Ab-

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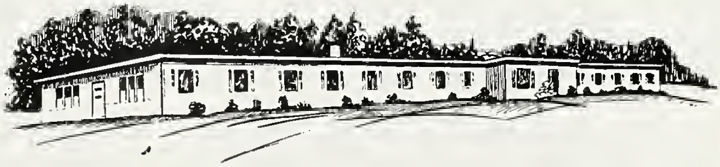

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stracts of such papers, under no circumstances to exceed 300 words, are due before June 13, 1958. They must be submitted in triplicate on forms which will be supplied to applicants.

24th NEW ENGLAND HEALTH INSTITUTE

University of Connecticut, Storrs, Connecticut
June 18-20, 1958

This year's New England Health Institute will mark the fifth time that Connecticut has been host state since the Institute was founded 35 years ago. The first time was in 1922 when NEHI was inaugurated in Hartford. Other years the Institute was held in Connecticut were 1929, 1940, and 1952. Massachusetts was host state in 1957 and New Hampshire in 1956.

AMERICAN MEDICAL ASSOCIATION

San Francisco, California
June 23-27, 1958

Twelth General Assembly World Medical Association
Copenhagen, Denmark
August 15-20, 1958

PUBLICATIONS AND TEACHING AIDS AVAILABLE FOR PHYSICIANS

A revised, comprehensive catalog "Publications and Teaching Aids for Physicians," is available free of charge from the national office of the American Heart Association or from local Heart Associations. Listed among the catalog's teaching aids are pamphlets, monographs, films, slides, recordings and other audiovisual materials. It points out that the Heart Association's educational programs include scientific sessions, postgraduate courses, teaching days and annual symposia. Brief descriptions of each item and prices are also included.

International College of Neuro-Psychopharmacology
Rome, Italy
September 9-12, 1958

Third World Congress of Cardiology
Brussels, Belgium
September 14-21, 1958

Annual Meeting American Academy for Cerebral Palsy
Sheraton Biltmore Hotel, Providence, R. I.
September 25-27, 1958

ARTERIOSCLEROSIS SOCIETY ANNUAL MEETING SCHEDULED WITH HEART ASSOCIATION SESSIONS

The American Society for the Study of Arteriosclerosis will hold its 1958 Annual Meeting simultaneously with the 31st Annual Scientific Sessions of the American Heart Association in San Francisco, October 25-26. Several joint programs are being planned at that time.

Annual Meeting Congress of Neurological Surgeons
St. Francis Hotel, San Francisco, California
October 30-November 1, 1958

American Academy of Dermatology and Syphilology
Palmer House, Chicago, Illinois
December 6-11, 1958

PUBLIC HEALTH FELLOWSHIPS FOR CONNECTICUT PHYSICIANS

The Connecticut General Assembly in 1957 provided funds for graduate study in public health for physicians in the State.

The fellowships cover cost of tuition for graduate study at Yale, Harvard, Columbia, Johns Hopkins, Michigan, and other universities with accredited schools of public health, and in addition carry a stipend averaging $400.00 per month based on the individual applicant's circumstances.

Interested Connecticut physicians are urged to communicate at once with Henry P. Talbot, M.D., Connecticut State Department of Health, Hartford (Tel: JAckson 7-6341, Ext. 833) so that qualified applicants can complete plans for university entrance at the beginning of the next term in September, 1958.

PACKAGE LIBRARY ON FLUORIDATION

Professional people who are called upon to investigate and report on fluoridation, will now find a package library of authoritative reference material available to them at convenient locations, or will be able to borrow the material, on a "loan" basis, from the State Department of Health.

Among other items, the package library presently contains reports from the National Research Council, and technical papers on the "Medical Aspects of Excessive Fluoride in a Water Supply," and "Nondental Physiological Effects of Trace Quantities of Fluorine," and "Urinary Floride Levels Associated With Use of Fluoridated Waters."

Reference copies are available at the following libraries:

Hartford Medical Society, 230 Scarborough Street, Hartford

Hartford Dental Society, 230 Scarborough Street, Hartford

New Haven Medical Association Library, 364 Whitney Ave., New Haven

Hartford Health Department, 56 Coventry Street, Hartford

Connecticut State Department of Health, Room 335, State Office Building, 165 Capitol Avenue, Hartford

State Library and Supreme Court Building, 231 Capitol Avenue, Hartford

, University of Bridgeport Fones School of Dental Hygiene, 400 Park Place, Bridgeport

Yale University School of Medicine, 333 Cedar Street, New Haven.

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AROUND THE STATE

Exhibit of Early Yale Physicians and Their Works

At the Yale Medical Library an exhibit is presently displayed dealing with eminent American physicians who graduated from Yale College previous to the founding of the Medical School. It emphasizes that the Yale tradition in Medicine is as old as Yale itself, Dr. Phineas Fiske of Haddam having graduated at Saybrook within three years of the founding of the College. The exhibit also emphasizes the important part that Yale graduates later in the 18th century played in the founding of the Connecticut Medical Society which, as we know, strongly supported the establishment of the Medical Institution of Yale College. The material displayed at the Historical Library is representative of many of the following physicians who graduated from Yale between the years 1701 and 1815.

[EARLY YALE PHYSICIANS]

1704 PHINEAS FISKE, Yale's first cleric-physician and as senior tutor for six years the practical head of the College.

1706 JARED ELIOT, Cleric-physician, teacher, scientist, the "Father of regular medicine in Connecticut."

1706 JONATHAN DICKINSON, Cleric-physician and medical writer. The first President of Princeton.

1731 ALEXANDER WOLCOTT, Physician and medical teacher, Army surgeon.

1733 BENJAMIN GALE, Physician, medical teacher, scientific agriculturist.

1733 DANIEL LATHROP, Physician, apothecary, benefactor of Yale College.

1744 LEVERETT HUBBARD, Physician, Army surgeon, a founder of the Connecticut Medical Society.

1747 LYMAN HALL, Physician, patriot, signer of the *Declaration,* Governor of Georgia.

1747 OLIVER WOLCOTT, Physician, lawyer, patriot, signer of the *Declaration*, judge, Governor of Connecticut.

1748 SAMUEL SEABURY, Cleric-physician, first Bishop of the Episcopal Church in America.

1750 ELIHU TUDOR, British Army surgeon and a founder of the Connecticut Medical Society.

1751 THOMAS MOSELEY, a founder and president of the Connecticut Medical Society.

1753 ENEAS MUNSON, Physician, legislator, a founder of the Connecticut Medical Society, President of that Society, member of the first faculty, Medical Institution of Yale College.

1754 JOSHUA PORTER, Physician, legislator, judge, industrialist, Army surgeon.

1760 JARED POTTER, Physician, Army surgeon, teacher, a founder of the Connecticut Medical Society.

1760 ELIAKIM FISH, Physician, Army surgeon, a founder of the Connecticut Medical Society.

1761 NATHAN BROWNSON, Physician, member of Congress, Governor of Georgia, a trustee and founder of the University of Georgia.

1765 MANASSEH CUTLER, Cleric-physician, teacher, botanist, member of Congress.

1774 JEREMIAH WEST, Physician, Army surgeon, legislator, judge, president of the Connecticut Medical Society.

1775 DAVID BUSHNELL, Physician, inventor of the submarine and the torpedo.

1777 JOHN BARKER, Physician, patriot, vice president of the Connecticut Medical Society. Important in the establishment of the Medical Institution of Yale College.

1779 NOAH WEBSTER, Pioneer epidemiologist and father of vital statistics in this country.

1780 MASON FITCH COGSWELL, Pioneer in surgery, a founder of the Asylum for the Deaf and Dumb, a "Connecticut Wit," president of the Connecticut Medical Society, member of the first medical faculty at Yale.

1786 ELIHU HUBBARD SMITH, Physician, editor of the first medical journal in America, a "Connecticut Wit," naturalist, journalist, editor of the first anthology of American verse.

1787 ELI TODD, Physician, pioneer in psychiatry, chief founder of the Retreat for the Insane, Hartford.

1789 JOHN STEARNS, Physician, legislator, discoverer of the medicinal properties of ergot. First president of the New York Academy of Medicine, president of the New York State Medical Society.

1796 THOMAS MINER, Physician, medical writer, linguist, pioneer in psychiatry, president of the Connecticut Medical Society.

1796 BENJAMIN SILLIMAN, a founder of the Medical Institution of Yale College, scientist, journalist.

1799 ELI IVES, Physician, botanist, member of the first medical faculty at Yale, president of the American Medical Association.

1806 WILLIAM TULLY, Physician, medical writer, teacher, botanist, chemist, member of the medical faculty at Yale.

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- does not produce secondary hypertension—low salt diet not necessary
- no unnatural psychic stimulation
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- and on a lower daily dosage range

Initial dosage: 8 to 20 mg. daily. After 2 to 7 days gradually reduce to maintenance levels.
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4 mg. tablets, bottles of 30 and 100.

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1807 ALEXANDER H. STEVENS, Physician, Army surgeon, professor of surgery, Rutgers University, professor of surgery, College of Physicians and Surgeons, New York, President of the American Medical Association.

1808 TIMOTHY BEERS, Physician, Army surgeon, professor of obstetrics at the Medical Institution of Yale College.

1808 JONATHAN KNIGHT, Physician, professor of anatomy and physiology and later professor of surgery at the Medical Institution of Yale College, president of the National Medical Association, president of the American Medical Association.

1812 EDWARD DELAFIELD, Physician, professor of obstetrics and diseases of women and children, College of Physicians and Surgeons, New York. President of the College of Physicians and Surgeons.

1812 JOHN WAGNER, Physician, professor of surgery, Medical College of South Carolina.

1813 GEORGE SUMNER, Physician, professor of botany, Trinity College, superintendent, Hartford Retreat, Historian, president of the Connecticut Medical Society.

1814 SAMUEL H. DICKSON, Practitioner, a founder of the Medical College of South Carolina, professor of medicine, New York University, professor of medicine, Jefferson Medical College, medical writer.

1815 JAMES G. PERCIVAL, Medical teacher, botanist, anatomist, linguist, poet, geologist, acting professor of chemistry, U. S. Military Academy, lexicographer.

One recognizes many familiar names in this list—Eliot, Gale, Munson, Potter, Cogswell, Todd, Ives, Tully, Knight, and Silliman—as resplendent in our medical history. However, Princeton's first president, Jonathan Dickinson, Bishop Samuel Seabury, David Bushnell of submarine frame, and Manasseh Cutler, preacher and Congressman, are not ordinarily identified with medical practice. Yet they all did practise that art assiduously at times in their careers.

The varied interests of our early physicians, particularly in their community life and in the political affairs of their day is a fact that invites reflection in the doctor of our own times. The exhibit has been arranged by Madeline E. Stanton, Librarian of Historical Collections, Yale Medical Library, and Dr. Herbert Thoms, Curator of Yale Medical Memorabilia.

Connecticut Regional Blood Program

Prior to making a blood donation, a prospective donor at a Red Cross Bloodmobile operation is given a hemoglobin test, using a copper sulfate solution, to determine the presence or absence of anemia. The Red Cross has adopted the policy of rejecting as donors all men with hemoglobin levels below 13.5 Gm. and all women with values below 12.5 Gm. per 100 ml. The precaution is a wise one even though some apparently normal people are not accepted as donors. A 12.8 Gm. level for a man does not necessarily indicate the presence of anemia, but it is too low to allow for further depletion by donation. But if mild anemia has resulted from a host of possible causes, careful medical evaluation will indicate that there is every reason for trying to correct that abnormality. The prospective donor should probably not donate blood until his physician has determined that he is healthy. Even then, however, most well-organized blood banks will refuse to accept him as a donor because they operate under regulations similar to those of the Red Cross. (*J.A.M.A.* Dec. 1957)

	JANUARY	7/1/57 THRU
DONORS	1958	1/31/58
Donors accepted	7,368	50,668
Donors rejected	593	4,655
Donors registered	7,961	55.323
BLOOD ISSUED TO HOSPITALS		
To Connecticut Hospitals from Center	6,123	44.055
Blood collected by hospitals	922	4,583
To fractionation stock pile	126	1,332
To N.I.H.	4	10
To out of state hospitals	54	514
	7,229	50,494
PROCESSING AT CENTER		
Processed into fresh frozen plasma	54	528
Processed into packed cells	0	11
Processed into liquid plasma	666	4,181
	720	4,720
Discarded—unfit and broken	31	231
GRAND TOTAL—Distribution of blood	7,980	55.445
BLOOD RETURNED to center for processing into plasma and fractions	571	4,142
BLOOD DERIVATIVES ISSUED TO HOSPITALS		
Irradiated plasma (300 cc)	0	275
Fresh frozen plasma (125 cc)	161	1,009
Serum albumin (100 cc)	70	673
Immune serum globulin (2 cc)	0	60
Packed red cells	0	11
Fibrinogen	0	0

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Advisory Committee to State Commissioners of Welfare and Finance and Control

Meeting of December 17, 1957 at New Haven.

PRESENT: Edwin R. Connors, Bridgeport; Ettore Carniglia, Windsor; James Root, Waterbury; William H. Upson, Suffield; Edwin Trautman, Trumbull; Donald Morrison, Hartford; Harold VonGlahn, New London; Creighton Barker, Executive Secretary, Connecticut State Medical Society; John P. Bachman, Medical Director State Welfare Department, Ex-officio.

NEW BUSINESS—WELFARE

Medical Billing Procedure. A number of letters of complaint from physicians and one letter from the Tolland County Medical Association were read and discussed. The committee was of the opinion that the State should take some action to relieve physicians of the extra burden entailed in the current procedure occasioned by the necessity of preparing two forms (W-500 and W-501) for each charge and of preparing a separate bill for each patient, especially where there were several patients in the family on ADC. The reasons for these requirements were explained by Dr. Bachman. The committee agreed to the necessity for a separate bill for each patient but felt strongly that the duplication of data on forms W-500 and W-501 be corrected. Several suggestions for elimination of one or the other forms were advanced. The following recommendations were adopted:

That the procedure for physician's billing be revised by the Department in consultation with Department of Finance and Control and with consultation from International Business Machines, Inc.

That an effort be made to revise form W-500 in its present size so that it could be used as the entire bill, eliminating W-501.

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FOR SALE—Factory rebuilt and refinished like new surgical and medical equipment, and furniture. Savings up to 50%. Attractive discounts on new equipment. Our references: Hundreds of completely satisfied physicians throughout the state. Set Hamilton treatment room furniture $375.00—New examination table $195.00—Treatment cabinets $125.00, list for $240.00—Hamilton instrument cabinet, double door $135.00—Scales $29.50—Baby scale $14.00—Instrument and treatment cabinets $35.00 up—Sterilizers $30.00 up—Automatic autoclaves $80.00 — Utility tables $10.00 — Muscle stimulators $85.00—Infra-red lamps $25.00—Only quality equipment sold. Phone Beverly 7-3145 or write for information: Harry Sacker, 188 Grove St., Meriden, Conn.

INTERNIST, 30, married, university trained, board eligible, seeks association with individual or group starting June. Write H. I. S. c/o Connecticut State Medical Journal, 160 St. Ronan Street, New Haven 11, Conn.

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CHapel 9-5781 — *Ext. 427*

That Dr. Bachman reply to Tolland County Medical Association as a progress report.

EXTENDED VISITS—MENTAL HOSPITALS

The problems brought out by the Mental Health Department concerning eligibility of persons on extended visit were reported with results of meetings held with Dr. Bellis and Mr. Rockmore. Present State plan was reported and discussed in hope that committee could make some recommendations.

RECOMMENDATIONS:

The committee was of the opinion that under present Federal laws our State plan could not be further modified to liberalize eligibility of persons on extended leave who were patients in medical institutions for further treatment of mental illness.

ADOPTION LAW

Present status of Medical and Social Agency cooperation was reported. Article to be published in January 1958 *State Medical Journal.*

CONVALESCENT CARE OF CHILDREN

Present status reported. Committee asked for further report at next meeting.

USE OF PSYCHOLOGISTS

Opinion and recommendation of committee were requested by Dr. Bachman on the following:

Should psychologists be used for mental testing when clinic facilities are not available?

Should interpretations of such tests by the psychologist be (a) sought, (b) accepted?

Should private psychologists be allowed to treat State beneficiaries or wards as the principal therapist or only under supervision of a psychiatrist? The recommendations of the committee were:

Privately practicing psychologists are capable of administering and scoring mental tests.

Interpretation of such tests should not be requested except from a physician, preferably a psychiatrist.

When furnished as part of the report of a mental test, the Medical Director should give to the interpretation furnished such weight as in his clinical experience is warranted by the factual portion thereof.

Therapy should be performed by privately practicing psychologists only under the direction and supervision of a psychiatrist.

Joint Committee
Connecticut State Medical Society
Connecticut Pharmaceutical Association
and
Connecticut State Dental Association

Meeting of January 22, 1958 at Waverly Inn, Cheshire..

Meeting was called to order by Dr. Walter Keefe who acted as chairman due to the unavoidable absence of Chairman Katzin. Due to the sudden inclement weather and heavy fog which blanketed the State, only 11 of 18 members who stated they would attend were present.

Members present weres Apgar, Durocher, Colwell, Cole, Mellion, Keefe, Fenney, Mercier, Mogull. Guests present: Dr. Barnett Greenhouse and Dr. Felix Blanc.

A letter from Creighton Barker, M.D., (secretary of Connecticut Medical Society) dated November 5, 1957 stated that the resolution the Joint Committee had passed at the October 23rd meeting relative to the inequities and confusion concerning the recent disorganized distribution of Asian influenza vaccine was discussed by the Medical Council and Dr. Barker was instructed to prepare and submit a resolution incorporating our views to the House of Delegates of the A.M.A. at its Philadelphia meeting on December 3-6, 1957.

Professor Fenney reported that Mr. Kunkel, secretary of the C.P.A. had orally reported to him that the Executive Committee of the C.P.A. approved our resolution concerning the Asian influenza vaccine distribution and a resolution similar to the Connecticut State Medical Society had been sent to the A.Ph.A. and the N.A.R.D.

The secretary reported that a recent news bulletin (dated December 6, 1957) sent out by the American Pharmaceutical Association mentioned that the A.M.A. in their meeting in Philadelphia on December 5, 1957 had adopted a resolution charging their Board of Trustees seek conference through the joint committee of the A.M.A., the A.Ph.A., the N.A.R.D. and their liaison committee with the drug manufacturers association with a view to establish a code of regulations for future distribution of important therapeutic products so that the best interests of *all* the people may be served.

NEW BUSINESS:

(1) Dr. Mellion distributed some posters concerning the National Dental Health Week,

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in the good taste
of Johnnie Walker
Scotch. Why not
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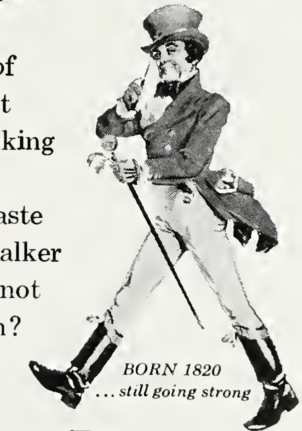

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February 2-8. He asked the members to use them wherever possible.

(2) Dr. Keefe called for comments from the invited guests at this time. Both Dr. Greenhouse and Dr. Blanc responded with their approval and satisfaction of the Joint Committee.

(3) Dr. Greenhouse informed the members concerning a new tablet (D.B.I. of U.S. Vitamin Corporation) which he is using under trial clinical use. He stated that Orinase Tablets (Upjohn Co.) must be used only where the pancreas is present whereas the D.B.I. Tablets work without the presence of a pancreas or even a liver. He further commented that Orinase was working well where indicated for the older age group but could not be used for the juvenile or brittle type of diabetes. He called Orinase "God's gift to the oldsters" as a result of his experience on over 200 cases. For diabetes in the age group of about 18 years and over, Orinase works well. Under about 16 years the results are not satisfactory.

D.B.I. Tablets (a guanidine-like chemical structure; Orinase is a sulfanil-amide-like chemical structure) work where Orinase does not, i.e., in juvenile and brittle type. The dosage is much less than Orinase, 50 mg. t.i.d. as compared with 500 mg. b.i.d. or daily. The one objection so far with D.B.I. is a gastrointestinal upset with nausea which is due to central and not local irritation.

Dr. Greenhouse stated that D.B.I. seems to work directly on blood sugar causing a peripheral utilization and also a storage of glycogen in the liver. Orinase does not do this. D.B.I. can be used in children as young as four years.

Pharmacist Apgar commented on Dr. Greenhouse's excellent presentation and thanked him. Chairman (pro tem) Keefe thanked Dr. Greenhouse for his excellent review.

NEXT MEETING:

The next meeting is to be held on April 17, 1958, (Thursday) at 6:30 P.M. at the Waverly Inn, Cheshire.

Meeting adjourned at 9:15 P.M.

Respectfully submitted,

Nicholas W. Fenney,
Secretary

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By providing more comfort and extra sleep for the baby, DENTOCAIN TEETHING LOTION grants the mother greater peace of mind and several additional hours of necessary rest.
DENTOCAIN has also been useful in providing temporary relief for pain of adult toothache.

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Hartford County

The Digest, published monthly by the Institute of Living, has now completed 25 years of service not only to physicians in the United States but also "to some of the great universities, to lonely medical missionaries in out of way places, and to numerous individuals in between." It is noteworthy that this digest of the latest contemporary psychiatric thought reaches behind the Iron Curtain to the U.S.S.R., Yugoslavia, China and Hungary.

Albert L. Larson has been appointed chief medical director of Travelers Insurance Company succeeding Ralph M. Filson who retired January 31. Dr. Larson has been employed by Travelers since 1940 except for four years when he served in the U.S. Army Medical Corps during World War II.

Hartford Hospital was the scene on January 25 of a very interesting panel discussion on "The Use of Antihemorrhagic Agents in Medical, Surgical and Specialty Practice." The team of distinguished medical teachers from New York City and Brooklyn comprised Drs. Perry Hudson, Henry P. Leis, Bernard J. Pisani, Richard H. Walden, and Benito B. Rich. After considering several antihemorrhagic drugs the concensus of opinion was that Hemocoavit (Wynlit) is the most efficacieous.

Hartford Hospital is praised in the current issue of "Nursing News", official bulletin of the Connecticut State Nurses' Association. According to a full-page editorial, "Hartford Hospital somehow manages to function as a closely knit family in spite of its size". Major credit for this accomplishment, the News believes, is "due to continuous effort of its administration toward building good working relationships between all groups of personnel in all departments by in-service training programs at all levels." The editorial ends with: "It is refreshing to realize that in this hospital nurses are happy in their positions, and certainly when nurses are happy in their jobs, patient care cannot help but be good".

Charles O. Purinton of New Hartford died at the age of 83 in Winsted on January 19 after a long illness.

(Continued on Page 254)

Juggling a Hot Potato

Chairman Olin Teague of the house veterans affairs committee is handling the Oklahoma County Medical Society's complaints about veterans' hospital admission practices.

When representatives of the Society appeared at a congressional hearing last February Rep. Teague asked them to put their suggestions in writing. This the Society has done. In a letter to Teague it says the Veterans administration has overbuilt hospital beds and is using "every means available" to keep them filled.

The Society suggests a simple remedy. It recommends that patients with nonservice connected disabilities be required to sign affidavits attesting their net worth and the income taxes they paid the preceding year.

It will be interesting to see what Rep. Teague does with this politically unpalatable proposal. Even more interesting will be the attitude of congress if any remedial legislation is proposed. There's nothing new about these practices. They were the subject of an exhaustive investigation by the Hoover commission's task force on federal medical services which submitted detailed corrective recommendations.

If Congress wanted information on which to base corrective legislation it didn't really need the advice of the Oklahoma County Medical Society. Charges similar to those the Society now makes were leveled against the VA in February, 1955, by the Hoover task force. Proposed at that time were remedies similar to those the Oklahoma county doctors are now suggesting.

In 1955 the Hoover commission said there were then 21 millions living veterans of whom about 17.5 millions were potentially eligible for hospitalization for nonservice connected disability subject to the limitations of declared inability to pay and the availability of beds. It said the 40,000 beds existing in Veterans' administration hospitals in 1933 "would have been sufficient to accommodate the highest average daily number of service-connected patients in any year from 1933 to date (1955)—including the service-connected cases from

TAKE A LOOK AT
NEW DIMETANE
THE UNEXCELLED
ANTIHISTAMINE

World War II and Korea." It said the increase in VA hospital operating beds from 40,000 to 118,000 represented an estimated expenditure of more than $1 billion for beds not required for care of service connected disabilities.

The commission said that a random check of declared inability to pay showed that one VA patient had an income of $50,000. It said 25 had assets of $20,000 or more and four had assets between $100,000 and $500,000. Like the Oklahoma County doctors the Hoover task force recommended that declarations of inability to pay be subject to verification with penalties for fraudulent concealment.

Certainly nonservice-connected cases already covered by private insurance shouldn't be treated at taxpayers' expense for in that event the underwriters as well as the veterans get a free ride.

Congress created the Hoover commission to ferret out governmental waste and recommend solutions. But in implementing the commission's suggestions Congress has shown a distinct preference for those that don't generate any political heat. In particular it has steered clear of every recommendation affecting the politically powerful veterans' organizations.

Reprint of editorial published in the Oklahoma City Times

A.M.A. Drafts Model Law

(*Continued from Page 230*)

and in the accompanying literature of chemical products used in the home and elsewhere.

"The proposed model law," Mr. Conley said, "was drafted after an exhaustive review of existing statutes revealed a hodge-podge of local regulations for the labeling of chemicals."

The law is directed against those hazardous substances defined as toxic, irritating, sensitizing, corrosive, flammable, explosive, or radioactive under customary or reasonably anticipated conditions of handling and use.

The law, as drafted by the A.M.A. committee headed by Dr. Torald Sollmann, Cleveland, Ohio, would:

—Require the labeling of all chemical products

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TABLETS (4 MG.), ELIXIR (2 MG. PER 5 CC.) AND EXTENTABS® (12 MG.) UNEXCELLED POTENCY, UNSURPASSED THERAPEUTIC INDEX AND RELATIVE SAFETY. MINIMUM DROWSINESS AND OTHER SIDE EFFECTS. A. H. ROBINS CO., INC., RICHMOND, VIRGINIA. ETHICAL PHARMACEUTICALS OF MERIT SINCE 1878
Robins

containing hazardous substances which are not now regulated.

—Require the same labeling standards to apply to chemicals for export as those for domestic consumption, thereby obviating the common complaint that less-than-standard products are sold to foreign customers.

—Prohibit re-use of food and drug containers bearing their original labels.

—Require identification and warnings for strongly sensitizing chemicals which cause allergic or inflammatory reactions in living tissue on contact.

Conley said a significant departure in drafting the new law was deletion of the word "poison" from the bill's provisions. This decision was reached, he said, after surveys showed a wide variation in existing legal limits for poison and a lack of agreement among scientists on a definition of the term.

"The A.M.A. committee," he said, "feels that reference standards for toxicity based on animal tests provide a more consistent and reliable index of the poisonous properties of chemicals."

The committee's work had strong support not only from the chemical industry but also from the National Drug Trade Conference and the American Public Health Association.

Social Security

Long term results of the trend toward Big Pensions and its sponsor Big Government are to be feared. Rewards by government for long life to all the people begins a leveling or averaging process that destroys individuality and initiative. It encourages the welfare state by placing responsibility for a great portion of our people solely in the hands of government.

Around the State

(Continued from Page 251)

Middlesex County

The Central Medical Association held its annual meeting at the Commodore Macdonough Inn in Middletown on January 30. The new officers elected for the coming year are: President, James Glessner, Jr.; Vice President, Benjamin Shenker; Secretary, Andrew Turano; Treasurer, Joseph Epstein. The speaker of the evening was Dr. Sigmund Neumann, professor of social sciences at Wesleyan. His subject was "The Era of Sputnik."

Eric Wachtman opened an office for general practice in Chester.

New Haven County

Alice Porter Ford, who practised in New Haven for more than 50 years, died at the age of 80 on January 16 after a long illness. Dr. Ford was active in the Neighborhood House Baby Conference in New Haven and was in charge of WAC examinations during World War II.

Harold S. Burr, E. K. Hunt professor of anatomy at Yale University School of Medicine and for many years a member of the *Journal's* editorial board, has retired after 43 years as a member of the University faculty. The December issue of *The Yale Journal of Biology & Medicine* contains a fitting tribute to Professor Burr.

Maurice J. Strauss, clinical professor of dermatology at Yale University School of Medicine, died in New Haven on February 2 at the age of 65 years. Dr. Strauss was a past president of the New Haven Medical Association and of the New England Dermatological Society.

Walter I. Russell, president-elect of the State Medical Society, will be one of the speakers at the Eighth Annual Personnel Conference on March 19 at Strathcona Hall, Yale University.

New London County

The New London County Medical Association held its monthly meeting, Thursday, February 6, 1958, at the Norwich Inn for dinner and cocktails with a scientific meeting being held at the Uncas-On-Thames Sanatorium at 8:30 P.M. William Wawro of Hartford gave an interesting discussion on the topic "Primary and Secondary Neoplasia of the Liver".

The Connecticut State Medical Journal

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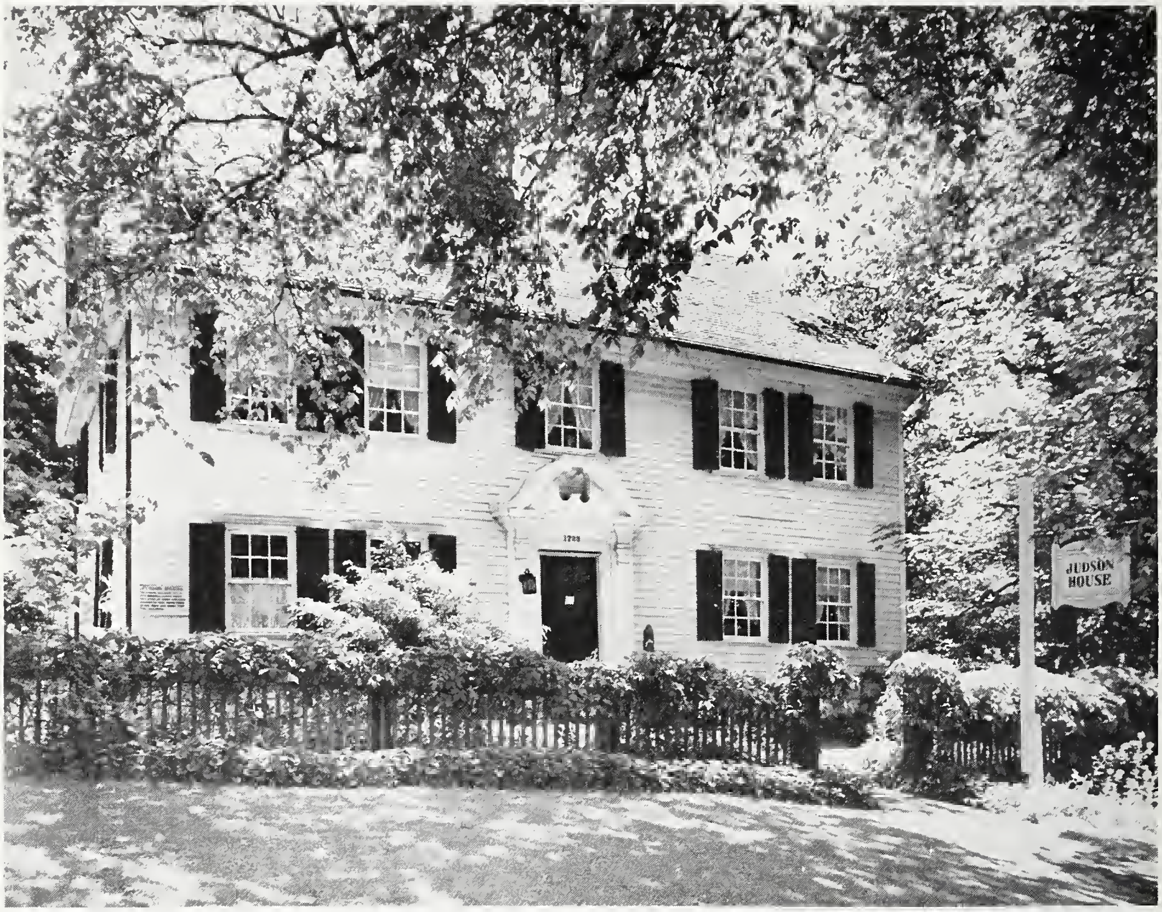
Public Relations: HARRY C. KNIGHT, Middletown
State Legislation: ALFRED L. BURGDORF, Hartford
Committee on Eye Care: CLEMENT C. CLARKE, New Haven

OTHER COMMITTEES OF THE SOCIETY ARE APPOINTED BY THE COUNCIL



Courtesy Stratford Chamber of Commerce

Captain David Judson House, Stratford

The
CONNECTICUT STATE MEDICAL JOURNAL

Vol. XXII APRIL, 1958 No. 4

166th ANNUAL MEETING
# of the
CONNECTICUT STATE MEDICAL SOCIETY

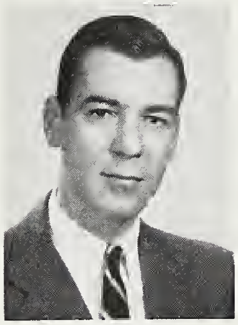
Stratford High School

North Parade Street, Stratford, Connecticut

April 29, 30, May 1, 1958

PROGRAM COMMITTEE

Arthur Ebbert, Jr., *New Haven, Chairman*
William J. Lahey, *Hartford*
David T. Monahan, *Bridgeport*



Arthur Ebbert, Jr.

Edwin R. Connors

LOCAL COMMITTEE ON ARRANGEMENTS

Edwin R. Connors, *Bridgeport, Chairman*
Daniel C. Barker, *Fairfield*
Nathan H. Friedman, *Stratford*
Stuart L. Joslin, *Fairfield*
Mr. Arnold P. Olson, *Bridgeport*
Alan R. Small, *Bridgeport*

Courtesy Stratford Chamber of Commerce

SHAKESPEARE THEATRE, STRATFORD

PROGRAM

Tuesday, April 29

MUSIC ROOM

ANNUAL MEETING OF THE HOUSE OF DELEGATES

COLE B. GIBSON, *Meriden, Speaker of the House, presiding*

10:00 CALL TO ORDER
BUSINESS SESSION

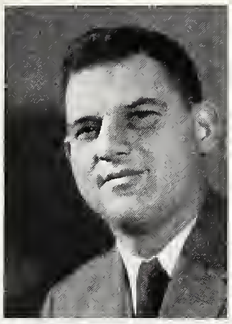
1:00 LUNCHEON FOR OFFICERS, MEMBERS OF THE HOUSE AND GUESTS

2:00 RESUMPTION OF BUSINESS

7:00 ANNUAL DINNER OF THE COUNCIL—The Council will hold its annual dinner for the Program Committee, the Local Committee on Arrangements, and guests at the Stratfield Hotel, Bridgeport

Lewis H. Bronstein, New York City; Associate Medical Director, Beekman Downtown Hospital; Associate Attending Physician, Goldwater Memorial Hospital.

Robert P. McCombs, Waban, Mass.; Professor of Graduate Medicine, Tufts University School of Medicine; Senior Physician, Pratt Diagnostic Clinic; New England Center Hospital, Boston.



William Hollander, Boston, Mass.; Instructor in Medicine, Boston University School of Medicine; Assistant Visiting Physician at Massachusetts Memorial.

Wilford F. Hall, Major General, USAF; Surgeon-Air Materiel Command, Wright - Patterson Air Force Base, Ohio.

Wednesday, April 30

9:00 REGISTRATION—Exhibit Hall

AUDITORIUM

9:15 CALL TO ORDER—W. Bradford Walker, *Cornwall, President of the Society*

ADDRESS OF WELCOME—G. Gray Carter, *Greenwich, President, Fairfield County Medical Association*

W. BRADFORD WALKER, *Cornwall, presiding*

9:45 REHABILITATION OF THE PATIENT WITH CORONARY ARTERY DISEASE

Lewis H. Bronstein, *New York; Associate Medical Director, Beekman Downtown Hospital; Associate Attending Physician, (Rehabilitation) Goldwater Memorial Hospital*

10:25 REACTIONS DUE TO DRUG IDIOSYNCRASY

Robert P. McCombs, *Boston; Professor, Graduate Medicine, Tufts College Medical School; Senior Physician, Pratt Diagnostic Clinic, New England Center Hospital*

11:05 INTERMISSION TO VISIT TECHNICAL EXHIBITS

ARTHUR EBBERT, JR., *New Haven, presiding*

11:20 CURRENT STATUS OF ANTI-HYPERTENSIVE DRUGS

William Hollander, *Boston; Instructor in Medicine, Boston University School of Medicine; Assisting Visiting Physician, Massachusetts Memorial Hospitals*

12:00 SPACE MEDICINE

Wilford F. Hall, *Major General, USAF(MC), Surgeon, Air Materiel Command, Wright-Patterson Air Force Base, Ohio*

1:00 LUNCHEON—Cafeteria of the High School

VISIT TO TECHNICAL EXHIBITS

Wednesday, April 30

2:00 PANEL ON ADOPTIONS

T. STEWART HAMILTON, *Hartford, presiding*

Explanation of the Connecticut Law and Placement Procedure

John P. Bachman, *Hartford; Medical Director, Connecticut State Welfare Department*

Mrs. Edith Valet Cook, *New Haven; Director, Connecticut Child Welfare Association*

Discussion

Donald J. McCrann, *Hartford, Obstetrician*

Edward T. Wakeman, *New Haven, Pediatrician*

Robert R. Keeney, Jr., *Manchester, General Practitioner*

Questions from the Floor

Summary—Chairman

NOTE: Physicians and representatives of child placement agencies and other interested persons are invited to attend.

MEETINGS OF SECTIONS OF THE SOCIETY AND GUEST ORGANIZATIONS

WOMAN'S AUXILIARY TO THE CONNECTICUT STATE MEDICAL SOCIETY

FOURTEENTH ANNUAL MEETING — STRATFIELD HOTEL, BRIDGEPORT

President: Mrs. Paul W. Tisher, *New Britain* — Secretary: Mrs. Charles N. Sullivan, *New Britain*

10:00 Registration

10:30 Business Meeting
Election of Officers
MEMORIAL SERVICE—Mrs. F. Erwin Tracy, *Middletown*

12:00 Social Hour

1:00 Luncheon
Introduction of Guests

GUEST SPEAKER

William J. Kennard, M.D., *Deputy Director, American Medical Association Washington Office*

"NATIONAL HEALTH LEGISLATION IN THE SPACE AGE"

3:00 Induction of Officers
Presentation of President's Pin—Mrs. Paul W. Tisher, *New Britain*
Response By Incoming President—Mrs. Charles M. Gratz, *Greenwich*
Adjournment

SECTION ON AVIATION MEDICINE

3:30 Room 222

Chairman: William B. Smith, *Hartford*

CIVIL AVIATION MEDICINE

T. C. Gentry, *New York; Regional Flight Surgeon, Civil Aeronautics Administration, New York International Airport, Jamaica*

SECTION ON DERMATOLOGY AND SYPHILOLOGY

3:30 Room 125

President: Elwood C. Weise, *Bridgeport* — Secretary: Cleveland R. Denton, *Hartford*

NEWER CAUSES OF OCCUPATIONAL DERMATOSES

Donald J. Birmingham, *Cincinnati; Medical Director, Chief Dermatologist, Occupational Health Field Headquarters, Department of Health, Education, and Welfare, United States Public Health Service*

Stratford High School

Wednesday, April 30

SECTION ON GASTROENTEROLOGY

3:30 Room 131

President: George P. Perakos, *New Britain* Secretary: Max Caplan, *Meriden*

Panel Discussion on Indigestion

Martin L. Pilot, *New Haven; Assistant Professor of Psychiatry, Yale University School of Medicine*
Sidney Selesnick, *West Haven; Chief, Gastroenterology Section, Veterans Administration Hospital*
Benjamin V. White, *Hartford; Chief, Gastrointestinal Section, Hartford Hospital*
Frank K. Abbot, *Waterbury; Associate Attending Physician, Waterbury Hospital*

SECTION ON PROCTOLOGY

3:30 Room 119

President: Angelo L. Gentile, *New Haven* Secretary: Abraham Markoff, *New Haven*

Gynecologic Aspects of Proctology

John M. Morris, *New Haven; Associate Professor of Gynecology, Yale University School of Medicine*

Wednesday, April 30

CONNECTICUT ASSOCIATION OF MEDICAL RECORD LIBRARIANS

10:00 Room 226

President: Mrs. Margaret L. Reeves, *New Haven* Secretary: Miss Jean Feindt, *Hartford*

10:00 Business Meeting
General Program

12:00 Luncheon

2:00 Problems in the Medical Certification of Causes of Death
Robert J. Keehn, B.S., M.S., *Hartford; Director of Vital Statistics, Connecticut State Department of Health*

CONNECTICUT CHAPTER OF NATIONAL ASSOCIATION OF SOCIAL WORKERS

MEDICAL SOCIAL WORK SECTION

2:00 Auditorium
3:30 Room 122

Chairman: Miss Josephine Verrengia, *Hartford* Secretary: Mrs. Bernice Grieve, *Waterbury*

2:00 The Medical Social Workers have been invited to attend the Panel on Adoption in the Auditorium

3:30 Business Meeting—Room 122

CONNECTICUT OCCUPATIONAL THERAPY ASSOCIATION

3:30 Rooms 120-121

President: Mrs. Bess Lande, *New Haven* Secretary: Miss Irene Obrock, *New Haven*

Program Chairman: Mr. Robert Belyea, *Hartford*

A Plan For Developing An Over-All Teaching Program
Mr. Schuyler Y. Spaulding, *Hartford; Consultant, Supervisory Personnel Development, Connecticut State Department of Education*

CONNECTICUT REGIONAL GROUP—MEDICAL LIBRARY ASSOCIATION

3:30 Room 124

Chairman: Mrs. Henrietta T. Perkins, *New Haven* Secretary: Mrs. Doris Caprio, *Newington*

Program Chairman: Mrs. Dorothy Wong, *West Haven*

Round Table Discussion: Interlibrary Loans

HEZEKIAH BEARDSLEY PEDIATRIC SOCIETY

3:30 Room 127

President: Charles S. Culotta, *New Haven* Secretary: Winston C. Hainsworth, *Willimantic*

The Infant With Congenital Heart Disease
Nelson K. Ordway, *New Haven; Professor of Pediatrics, Yale University School of Medicine*

Wednesday, April 30

ANNUAL DINNER OF THE SOCIETY

Stratfield Hotel, Bridgeport

7:00

PROGRAM

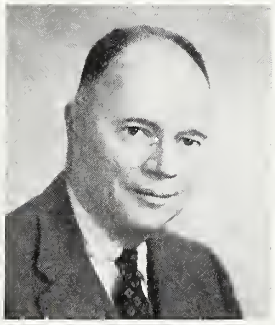
W. Bradford Walker, *Cornwall, presiding*

Introduction of Newly Elected Officers

Presentation of Guests and Delegates from State Medical Societies

Fifty Year Membership Awards

- Theodore Frank Bevans, *Waterbury*
- Harry Bigelow Hanchett, *Torrington*
- John Patrick Hanley, *Stafford Springs*
- Albert Russell Keith, *Hartford*
- Morris Tuch, *Hartford*
- George Francis Vail, *Hartford*

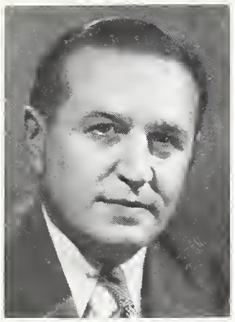


Aims C. McGuinness

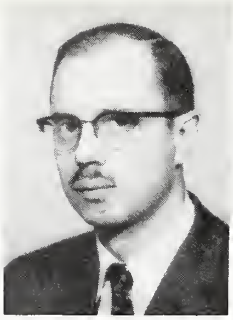
The Role of the Federal Government in the Field of Medical Care

Aims C. McGuinness, *Washington, D. C.; Special Assistant for Health and Medical Affairs to the Secretary of Health, Education, and Welfare*

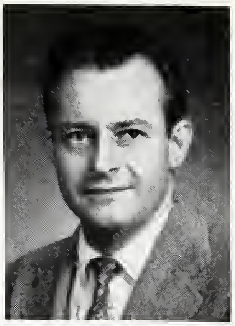
Reservation cards for the Annual Dinner will be included with the program of the meeting which will be distributed to all members; wives of members are invited to attend.



Wesley W. Spink, Minneapolis, Minn.; Professor of Medicine, University of Minnesota Medical School, Minneapolis, Member of the Staff, University of Minnesota Hospital, Minneapolis.



Tilden C. Everson, Chicago, Illinois; Clinical Associate Professor of Surgery, University of Illinois College of Medicine.



Solomon A. Berson, New York City; Chief, Radioisotope Service, Veterans Administration Hospital, Bronx, New York.

Robert W. Buxton, Baltimore, Maryland; Professor of Surgery and Chairman of Department of Surgery, University of Maryland School of Medicine.

Thursday, May 1

9:00 Registration—Exhibit Hall

Auditorium

9:15 Film—The Doctor Defendant
(Courtesy Wm. S. Merrell Company, Cincinnati, Ohio

David T. Monahan, *Bridgeport, presiding*

10:00 The Problem of Staphylococcal Sepsis
Wesley W. Spink, *Minneapolis; Professor of Medicine, University of Minnesota Medical School; Member of the Staff, University of Minnesota Hospital*

10:40 Spontaneous Regression and Arrest of Cancer
Tilden C. Everson, *Chicago; Clinical Associate Professor of Surgery, University of Illinois College of Medicine*

11:20 Intermission to visit technical exhibits

William J. Lahey, *Hartford, presiding*

11:35 Some Uses of Isotopes in Medicine
Solomon A. Berson, *Bronx, N. Y.; Chief, Radioisotope Service, Veterans Administration Hospital*

12:15 Progress in Cancer Research
C. P. Rhoads, *New York; Director, Sloan Kettering Institute for Cancer Research; Scientific Director, Memorial Center for Cancer and Allied Diseases*

1:00 Luncheon—Cafeteria of the High School
Visit to technical exhibits

Thursday, May 1

PROGRAM ARRANGED BY THE CONNECTICUT SOCIETY OF AMERICAN BOARD SURGEONS

President: Bliss B. Clark, *New Britain* Secretary: Eugene J. Fitzpatrick, *New Haven*

Program Chairman: Mark A. Hayes, *New Haven*

2:00 Thyroid Disease in Children

Robert W. Buxton, *Baltimore; Professor and Chairman, Department of Surgery, University of Maryland School of Medicine*

3:15 Report on the World Medical Association

Clifford W. Mills, *Norwalk, Member, Connecticut Branch of U.S. Committee*

MEETINGS OF SECTIONS OF THE SOCIETY AND GUEST ORGANIZATIONS

SECTION ON ANESTHESIA

3:30 Room 127

President: Daniel M. Massey, *Bridgeport* Secretary: Edward J. Platz, *Manchester*

Program Chairman: Alastair J. Gillies, *New Haven*

Pressure Breathing Apparatus

Meyer Saklad, *Providence; Director of Anesthesiology, Rhode Island Hospital*

EYE, EAR, NOSE AND THROAT SECTION

3:30

President: Morton Arnold, *Willimantic* Secretary: John P. Simses, *Bridgeport*

(There will be two separate programs, one for the Eye Section and one for the Ear, Nose and Throat Section)

Eye Section—Room 126

Unusual Conditions of the Anterior Segment

David D. Donaldson, *Boston; Associate Ophthalmologist, Harvard Medical School*

ENT Section—Rooms 120-121

(Joint Meeting with Section on Radiology)

Radiology of the Temporal Bone

Alexander S. MacMillan, *Boston; Roentgenologist, Massachusetts Eye and Ear Infirmary; Associate Radiologist, Harvard Medical School*

5:00 Combined Business Meeting—Rooms 120-121

Thursday, May 1

JOINT MEETING

Music Room

CONNECTICUT SOCIETY OF AMERICAN BOARD OBSTETRICIANS AND GYNECOLOGISTS

President: Hugh K. Miller, *Stamford* Secretary: Joseph Klein, *Hartford*

and

SECTION ON OBSTETRICS

President: Clair B. Crampton, *Middletown* Secretary: Orvan W. Hess, *New Haven*

3:00 Business Meeting—Section on Obstetrics

3:30 Severe Pelvic Infections

Conrad G. Collins, *New Orleans; Professor of Obstetrics and Gynecology, Tulane University School of Medicine, New Orleans, Louisiana*

SECTION ON ORTHOPEDICS

3:30 Auditorium

President: Burr H. Curtis, *Hartford* Secretary: Edmond R. Zaglio, *Manchester*

The Juvenile Amputee

Charles H. Frantz, *Grand Rapids; Chief of Orthopedic Surgery, Blodgett Memorial Hospital; Vice-Surgeon-in-Chief, Mary Free Bed Convalescent Hospital and Orthopedic Center, Grand Rapids, Michigan*

The Section on Physical Medicine, the Connecticut Chapter-American Physical Therapy Association, and the Connecticut Occupational Therapy Association have been invited to join this meeting.

SECTION ON PHYSICAL MEDICINE

3:30 Auditorium

President: Samuel A. Schuyler, *Hartford* Secretary: H. Bruno Arnold, *New Haven*

The Section on Physical Medicine will join the Section on Orthopedics in the Auditorium

CONNECTICUT CHAPTER—AMERICAN PHYSICAL THERAPY ASSOCIATION

3:30 Auditorium

President: Wilhelmina J. Werkhoven, *Rockville* Secretary: Marilyn K. Marchant, *Glastonbury*

The Connecticut Chapter—American Physical Therapy Association will join the Section on Orthopedics in the Auditorium

CONNECTICUT SOCIETY OF PATHOLOGISTS

3:30 Room 222

President: Ronald S. Beckett, *Hartford* Secretary: Christie E. McLeod, *Middletown*

The Dilemma of Johann Jacob Wepfer (The History of the Contracted Kidney)

Paul Klemperer, *New York; Formerly Pathologist, Mt. Sinai Hospital*

Thursday, May 1

SECTION ON RADIOLOGY

3:30 Rooms 120-121

President: Frederick J. Fagan, *New London* Secretary: Ralph J. Littwin, *Bristol*

Program Chairman: Richard L. Barach, *New Haven*

RADIOLOGY OF THE TEMPORAL BONE

Alexander S. MacMillan, *Boston; Roentgenologist, Massachusetts Eye and Ear Infirmary; Associate Radiologist, Harvard Medical School*

(The Ear, Nose, and Throat Section have been invited to join this meeting)

ASSOCIATION OF MEDICAL EXAMINERS

3:30 Room 131

Chairman: Samuel B. Rentsch, *Derby* Secretary: Edwin R. Connors, *Bridgeport*

Program Chairman: Donald R. Hazen, *Hartford*

PROGRESS IN THE LABORATORY

Abraham Stolman, Ph.D., *Hartford; Chief of the Laboratory of Toxicology, Connecticut State Board of Health*

CONNECTICUT ALLERGY SOCIETY

3:30 Room 226

President: Joseph Weiner, *New Haven* Secretary: Marvin Mogil, *New Haven*

ASTHMATIC BRONCHITIS

M. Murray Peshkin, *New York; Consulting Allergist, Mt. Sinai Hospital; Clinical Professor of Medicine and Pediatrics (Allergy), Albert Einstein Medical College*

CONNECTICUT DIABETES ASSOCIATION

3:30 Room 122

President: Leonard A. Howard, *Cos Cob* Secretary: James C. Hart, *Hartford*

RELATIONSHIP OF FATS, CHOLESTEROL AND CORONARY HEART DISEASE

Norman Jolliffe, *New York; Director, Bureau of Nutrition, New York City Department of Health*

ART EXHIBIT

CONNECTICUT PHYSICIANS' ART ASSOCIATION

Rooms 219-220

John M. Freiheit, *85 Grove Street, Waterbury, Chairman*

Mrs. Orvan W. Hess, *29 Old Orchard Road, North Haven, Co-Chairman*

Mrs. Anthony A. Apuzzo, *17 Villa Avenue, Bridgeport, Co-Chairman*

The 1958 exhibit of the Connecticut Physicians' Art Association will be held during the Annual Meeting in Rooms 219-220 of the Stratford High School, North Parade Street, Stratford. Members of the Woman's Auxiliary to the Society will participate in the exhibit and as a special feature, children of members of the Society have been invited to submit entries.

Technical Exhibits

Space	*Firm*	*Location*
1	The Coca-Cola Company	Atlanta, Ga.
2	The Professional Equipment Company (merged with E. L. Washburn Co.)	New Haven, Conn.
3	The National Drug Company	Philadelphia, Pa.
4	Yorktown Products Corporation	New York, N. Y.
5	Desitin Chemical Company	Providence, R. I.
6	Ciba Pharmaceutical Products, Inc.	Summit, N. J.
7	Thermo-Fax Sales of Connecticut, Inc.	Hamden, Conn.
8	Westwood Pharmaceuticals	Buffalo, N. Y.
9	Organon, Inc.	Orange, N. J.
10	Milex of New York	Long Island City, N. Y.
11	Ortho Pharmaceutical Corporation	Raritan, N. J.
12	E. R. Squibb & Sons	New York, N. Y.
13	The Pepsi Cola Bottling Co. of Fairfield, Inc.	Fairfield, Conn.
14	Guardian Chemical Corporation	Long Island City, N. Y.
15	J. B. Roerig & Company	New York, N. Y.
16–17	American Surgical Supply & Equipment Co.	Bridgeport, Conn.
18	Arthur W. Eade Agency	New Haven, Conn.
19	Pfizer Laboratories	Brooklyn, N. Y.
20	Eli Lilly and Company	Indianapolis, Ind.
21	Saratoga Springs Authority	Saratoga Springs, N. Y.
22	Ayerst Laboratories	Hackensack, N. J.
23	William S. Merrell Company	Cincinnati, Ohio
24	E. Fougera & Company, Inc.	Hicksville, N. Y.
25	Merck, Sharp & Dohme	Philadelphia, Pa.
26	American Ferment Company, Inc.	New York, N. Y.
27	W. B. Saunders Company	Philadelphia, Pa.
28	Burroughs-Wellcome & Co. (U.S.A.) Inc.	Tuckahoe, N. Y.
29	Seven-Up Bottling Company, Inc.	South Norwalk, Conn.
30	Tailby-Nason Company	New York, N. Y.
31	Doho Chemical Corporation	New York, N. Y.
32	Brewer & Company, Inc.	Worcester, Mass.
33	Sandoz Pharmaceuticals	Hanover, N. J.
34	Abbott Laboratories	North Chicago, Ill.
35	Wm. P. Poythress & Co.	Richmond, Va.
36	Educational Exhibit	
37	Nepera Laboratories Division	Morris Plains, N. J.
38	R. J. Reynolds Tobacco Co.	Winston Salem, N. C.
39	The S. G. Massengill Co.	Bristol, Tenn.
40	E. F. Mahady Company	Cambridge, Mass.
41	The Upjohn Company	Kalamazoo, Mich.
42	Audio-Digest Foundation	Glendale, Calif.
43–44	Community Obstetrical Study	Hartford, Conn.
45	Smith, Kline & French Laboratories	Philadelphia, Pa.
46	Mead Johnson & Company	Evansville, Ind.
47	G. D. Searle & Company	Chicago, Ill.
48	The Stuart Company	Chicago, Ill.
49	The Borden Company	New York, N. Y.
50	C. B. Fleet Company, Inc.	Lynchburg, Va.
51	U. S. Vitamin Corporation	New York, N. Y.
52	Surgeons & Physicians Supply Company	Boston, Mass.
53	Purdue Frederick Company	New York, N. Y.
54	The Baker Laboratories, Inc	Cleveland, Ohio
55	Health Insurance Council	New York, N. Y.
56	Spencer, Incorporated	New Haven, Conn.
57	A. S. Aloe Company	St. Louis, Mo.
58	Endo Laboratories, Inc.	Richmond Hill, N. Y.
59	Schering Corporation	Bloomfield, N. J.
60	Walker Laboratories, Inc.	Mt. Vernon, N. Y.
61	Geigy Pharmaceuticals, Division of Geigy Chemical Corporation	Yonkers, N. Y.
62	Connecticut Medical Service	New Haven, Conn.
63	The D. G. Stoughton Company	Hartford, Conn.

Exhibit Decorator

Robert E. Stacy, 1090 Page Boulevard, Springfield, Massachusetts

SOME HIGHLIGHTS OF STRATFORD HISTORY

Stratford was settled by a small band of men and women led by Reverend Adam Blakeman, in 1639. This territory was visited by Captain Mason and his men in 1637 while they were pursuing the Pequot Indians to Saco Swamp in Fairfield where the "Great Swamp Fight" ended the Pequot War.

The first settlers found the Cupheag, Pequonnock, and Pangasset Indians living in this territory and purchased the land from them.

A ferry across the Housatonic River, first operated by Moses Wheeler, was established in 1648, and replaced by a bridge in 1804, which has since been replaced four times.

Goody Bassett was tried for witchcraft in 1651.

In 1672, due to ecclesiastical troubles, some Stratfordites moved to and settled Woodbury which was then called Pomperaug.

Soldiers from Stratford took part in King Phillip's War when the Narragansett Indians were defeated in 1675.

The meeting House on Academy Hill was fortified in 1689.

A great wolf hunt was organized in 1693.

Christ Episcopal Church was established in 1707, and Reverend Samuel Johnson became its first rector in 1723. In 1754 he was appointed the first President of King's College, now Columbia University. The first organ in Connecticut was placed in Christ Church in 1756.

Captain David Wooster, born in Stratford in 1710, took part in the capture of Louisburg in King George's War in 1744. Afterwards he became the first Major of Connecticut troops and Brigadier General in the Continental Army. He was mortally wounded in battle near Ridgefield, April 27, 1777 and is buried in Danbury, Connecticut.

Colonel Frasier's regiment camped on Academy Hill in 1757 at the time of the French and Indian War. Stratford men took part in the capture of Fort William Henry.

In the great drought of 1762 a spring was found as a result of prayer on the farm of Reverend Nathan Birdseye. The spring is known as Prayer Spring.

Lord Sterling of Scotland married Glorianna Fulsom, the blacksmith's daughter of Stratford in 1771.

Stratford was the largest town in Fairfield County in 1775 and did its full share in the Revolutionary War. It was visited by Washington April 21, 1775. Washington and Lafayette met in Stratford September 19, 1780. Washington visited Stratford again in 1789 and Lafayette visited here again in 1824.

Hon. William Samuel Johnson, member of the Constitutional Convention and one of the committee which drafted the Federal Constitution, was born in Stratford in 1727. He became a member of Congress and was the first president of Columbia College.

Jessee Lee, pioneer Methodist evangelist, preached in Stratford on July 4, 1789. The first Methodist Class was organized May 19, 1790.

Huntington was set off from Stratford in 1789, Trumbull in 1797, and Bridgeport in 1821.

Captain Samuel Nicoll of Stratford with the privateers "Scourge" and "Rattlesnake" took part in capturing and annoying the enemy trade and commerce in the War of 1812.

Stratford Academy was established in 1806, and under the leadership of Frederick A. Sedgewick, 1847-1872, had the reputation of being one of the leading institutions of its kind.

Gideon Tomlinson, Representative in Congress, 1819-27, Governor of Connecticut, 1827-31, and United States Senator, 1831-37, was born in Stratford in 1788.

Stratford men were among the first to enlist when Lincoln called for volunteers in 1861, and took part in almost every important battle of the Civil War.

The Home Guards were organized in 1863 as Co. K 8th Regiment Conn. National Guard and continued to be active for more than thirty years. Transferred to Bridgeport in 1892, it became known as Battery B and was mustered into Federal Service in the Spanish American War.

St. James Roman Catholic Church was established in Stratford in 1886.

In 1889 Stratford celebrated its 250th anniversary and erected the Soldiers' and Sailors' Monument on Academy Hill.

Thirty-two persons lost their lives when a trolley car ran off the bridge at Peck's Mill Pond in 1899.

ACCIDENTAL POISONING IN CONNECTICUT

A One Year Survey

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INTRODUCTION

The problem of accidental poisoning in children has received increasing attention over the past 10 years. The daily arrival on the market of a myriad of potentially toxic household substances, plus the annual expenditure of close to three quarters of a billion dollars on prescriptions and one billion dollars more on packaged medications[1] has created a source of toxic substances of tremendous proportions.

In June, 1956 a study was begun in an attempt to determine the extent of the problem of accidental poisoning in the State of Connecticut. Primarily, this study was to be used to gather evidence for presentation before the Connecticut State Legislature in support of a Hazardous Substance Labeling bill, and no attempt was made to carry out a detailed epidemiological study of the type done in New York City by Jacobziner *et al.*[2] However, it is felt that the survey has revealed certain facts which will be of interest to all physicians dealing with the problem of accidental poisoning.

This report deals with information received from pediatricians, as well as other physicians, throughout the State. This information was secured by means of a brief post card report form which each physician, seeing a case of accidental poisoning, was asked to fill out and return.

In the 12 month period ending May 31, 1957, a total of 322 cards were returned. It is realized that this by no means represents all cases of accidental poisoning that occurred during this period. However, analysis of the data on the cards reveals a remarkable similarity to data obtained in other studies[1,2,3] as to age and sex distribution, and type of substance most commonly ingested. This will be brought out in greater detail below.

SUMMARY

The results of a one year survey of cases of accidental poisoning in Connecticut are presented.

Three hundred and twenty-two cases of poisoning were reported by pediatricians and other physicians throughout the State, using a brief postcard report form.

Analysis of the data reported reveals that: a) the largest group of substances responsible for accidental poisonings are medications (fifty-six per cent) of which aspirin is the worst offender (thirty-three per cent), b) household products (bleaches, cleansers and sanitizing agents of various sorts), pesticides and solvents (petroleum hydrocarbons) follow in that order.

When analyzed from the standpoint of age and sex, it was found that between one and four years of age, males outnumbered females. The statistical significance of this difference, however, is questionable due to the small number of cases involved.

Sixty-five per cent of all the cases of poisoning reported occurred between the ages of one and three years. Poisonings due to household products predominated between the age of one and two years, when children are still creeping about on the floor and under the sink. Between the age of two and three years, as the child learns to climb and reach into drawers and cabinets, poisoning due to medications predominate. Caution and heightened taste discrimination from the age of four years onward tend to decrease the incidence of poisoning due to all substances, while closer parental supervision and the child's inability to move about tend to lessen the incidence under the age of one year.

MATERIALS AND METHODS

A brief report form was printed on postcards. When completely filled out, this card supplied the following information on each case:

1. Age.
2. Sex.
3. Type of substance swallowed (insecticide, bleach, medication, etc.)
4. Toxic constituent if known (if this was not known, or if he was unable to find out, the physician was asked to state this.)
5. Outcome (death or estimate of disability).
6. Name of hospital (for purposes of determining geographic distribution).
7. Physician's name.
8. Additional remarks.

Report cards were sent to every hospital in the State, along with a covering letter, explaining the purpose of the survey and requesting the cooperation of all the physicians on the hospital staff. In addition, a supply of cards was sent to each pediatrician in the State with a similar covering letter. To secure additional cards, all any physician needed to do was to check an appropriate space on the card he was returning.

RESULTS

Of the 322 cards returned, all but three were sufficiently filled out to obtain all the information listed under the eight headings above. Three cards lacked the patient's age. In addition, much additional information was supplied under the heading of remarks. Cards were sent to 31 hospitals. One or more reports were received from 22 hospitals throughout the State. In six instances the reports indicated that the patient had been treated at home, and in 13 instances treatment was given in a physician's office.

The substances ingested are listed in Table I. The predominance of medications, especially aspirin, is similar to the findings in other studies here and in England.[1,2,3,4] Where the type of aspirin was stated on the report, it was noted that the ingestion of flavored aspirin was involved eight times as frequently as the unflavored variety. It would seem that the pleasant flavor of these tablets might well entice children to eat them like candy, thus increasing the likelihood of accidental ingestion. In one instance a serum salicylate level of 225 mg per cent was reported following the ingestion of approximately 25 to 30 tablets of 1¼ grain aspirin by a two year old child. Immediate gastric lavage was performed and the child suffered no ill effects.

TABLE I

				AGE IN YEARS					
TYPE OF SUBSTANCE INGESTED	TOTAL NO.	MALE	FEMALE	NOT STATED	UNDER 1	1-2	2-3	3-4	OVER 4
Aspirin	108	58	50	1	1	9	44	44	9
Medicine other than Aspirin	66	36	30	0	1	10	31	10	14
Amphetamine	3								
Antihistamines	7								
Ataraxics	4								
Barbiturates	12								
Cough Preps.	4								
Ergot Deriv.	3								
Laxatives	5								
Opiates	7								
Misc.	21								
External Medic. & Cosmetics	27	11	16	0	0	13	6	3	5
Solvents	22	14	8	1	0	11	8	2	0
Household Products	67	36	31	1	3	35	17	7	4
Bleach	13								
Detergents	4								
Illum. Gas	6								
Lye	5								
Matches	5								
Misc.	34								
Pesticides	32	22	10	0	1	19	9	2	1

There was one death reported. This followed the ingestion of an unknown quantity of a chlortrimeton-nembutal mixture by a four and one half year old female. Death occurred 48 hours after ingestion. There were three other reports of serious results from ingestion of medications. One concerned a four year old child who consumed 12 capsules containing a total of three grains of codeine combined with salicylates and belladonna alkaloids. This child was comatose for four hours, requiring artificial respiration for a brief period. He made a satisfactory recovery. The second child, age two years, ate about 200 ferrous sulfate tablets. He remained in shock and semicoma for 48 hours before making a complete recovery.

Among the 108 household products ingested, 14 were reported as being of unknown composition. These included such bizarre substances as wax re-mover, poison ivy killer, hydraulic brake fluid, body deodorants and inks. Nine of these patients were reported to have been treated with gastric lavage. Of these, two were hospitalized. There were no serious consequences among them.

Twenty-seven cases of poisoning due to pesticides were reported. Seventeen of these occurred during the warmer months (May to Sept.) when insects become a household or farm problem, thus prompting increased usage of these compounds and subsequently increased ingestion by inquisitive children. Three general groups of pesticides caused all 27 cases of poisoning: (1.) Ant buttons—these contain sodium arsenate and are usually left about floors where they are easily accessible to children; (2.) Rat or mouse "seeds"—these contain strychnine and are also scattered about floors of houses and barns and are thus tempting to small children; (3.) Chlorinated hydrocarbons (D.D.T. and chlordane)—most commonly the substances were in solutions, either watery or in kerosene and were left in jars, bottles or other containers where they were easily accessible to children. There were no deaths reported due to insecticide poisoning.

The percentages of the various substances involved in accidental poisonings in this study are given in Figure 1. There is a striking similarity between these figures and those of others, and at the same time, some notable variations (Table II). It will be noted that the Connecticut figure for aspirin (33 per cent) is much higher than that of the other three groups used for comparison. One reason for this may be that our study was concerned with all reported cases of poisoning rather than only those reported to poison information centers or those seen in hospitals. Since the ingredients of aspirin are commonly known and knowledge of the treatment fairly wide spread, and since many of the cases do not require hospital treatment, the number of cases reported from a general population survey such as ours would be higher. However, our figure for all medications combined (23 per cent) is very similar to the figures of Jacobziner in New York, Stanage in Omaha and Swinscow in England. Bain[1] states that "The most common drug killer is aspirin (and the salicylates). Death from this cause numbered 113 under 5 years of age in the 2 year period." (1949-190) These are nationwide figures obtained from the International List of Causes of Death. In Connecticut, medications, especially aspirin, represent the single most frequent cause of accidental poisoning.

Table II

TYPE OF SUBSTANCE	THIS SERIES	JACOBZINER ET AL	STANAGE ET AL	SWINSCOW ET AL
Medications (excluding external)	23%	26%	47.5%	62 %
Aspirin	33%	12%	15 %	5.5%
External Medication (including cosmetics)	8%	9%	*	*
Pesticides	10%	10%	9.2%	*
Household Products	20%	19%	*	22 %
Solvents (Petro. Hydrocarbons)	6%	6%	14.8%	*

* Percentages for this group of substances not available in this study.

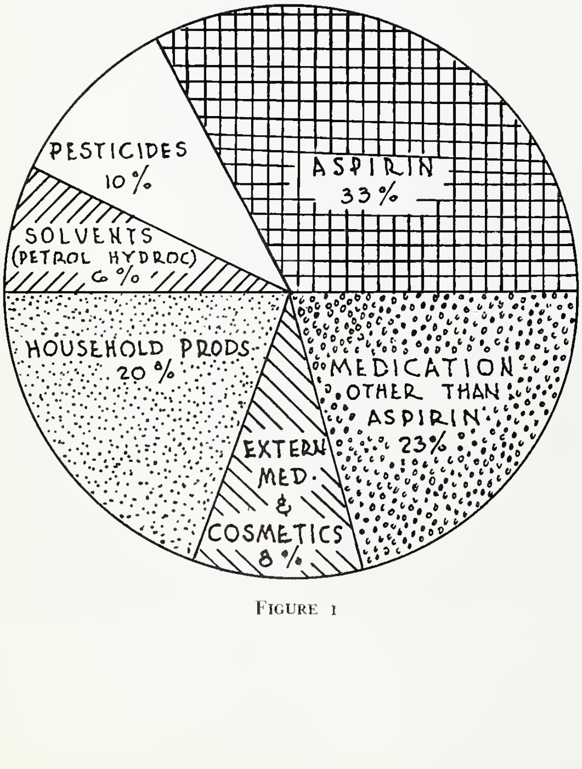

Figure 1

Household products exclusive of insecticides and rodenticides form the second largest group of substances responsible for accidental poisoning. This is an extremely heterogeneous group of substances, and comparisons between different series are admittedly difficult. However, certain substances are remarkably constant in the frequency with which they cause accidental poisoning. Petroleum hydrocarbons, notably kerosene, are the worst offenders in the household products group. In Connecticut these substances were responsible for six per cent of the total cases reported. Bleaches were the next most common. A large group included such a diversity of substances as to be impossible to compare them on an individual basis with other series. Hence, these are grouped together under miscellaneous.

Insecticides and rodenticides accounted for 10 per cent of the total cases in Connecticut. This figure is almost identical to the figures of Jacobziner *et al* and Stanage *et al.*

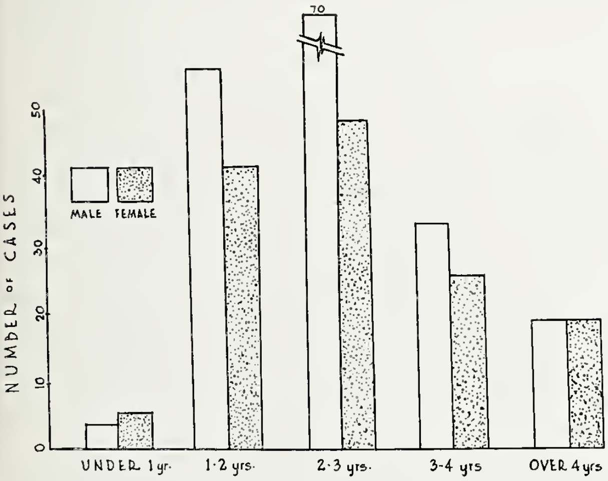

FIGURE 2

STUDIES BASED ON AGE AND SEX

Figure 2 shows the age and sex distribution of the 322 cases of accidental poisoning reported in this series. In the age group under one year, there are too few cases to be of any significance. Concerning the group over four years of age, there were 11 adults reported in this group, and this would tend to interpose a complicating factor which might alter the significance of the findings. In the one to two year, two to three year and three to four year age groups, the males outnumber the females. It would seem that the predominance of cases among males in these groups might represent greater activity on the part of boys in dangerous areas (e.g., garages, barns, etc.) as well as the usual climbing on chairs in kitchen and bathrooms indulged in by both sexes. Although these figures are suggestive, the small numbers of cases involved makes them of doubtful statistical significance.

Figure 3 shows the type of substances ingested at various ages. It will be seen that the greatest toll of accidental poisonings occurs between the ages of one and three years (65 per cent of the total). Poisonings due to internal medications (including aspirin) were highest between two and three years, while poisonings due to household products (e.g.,

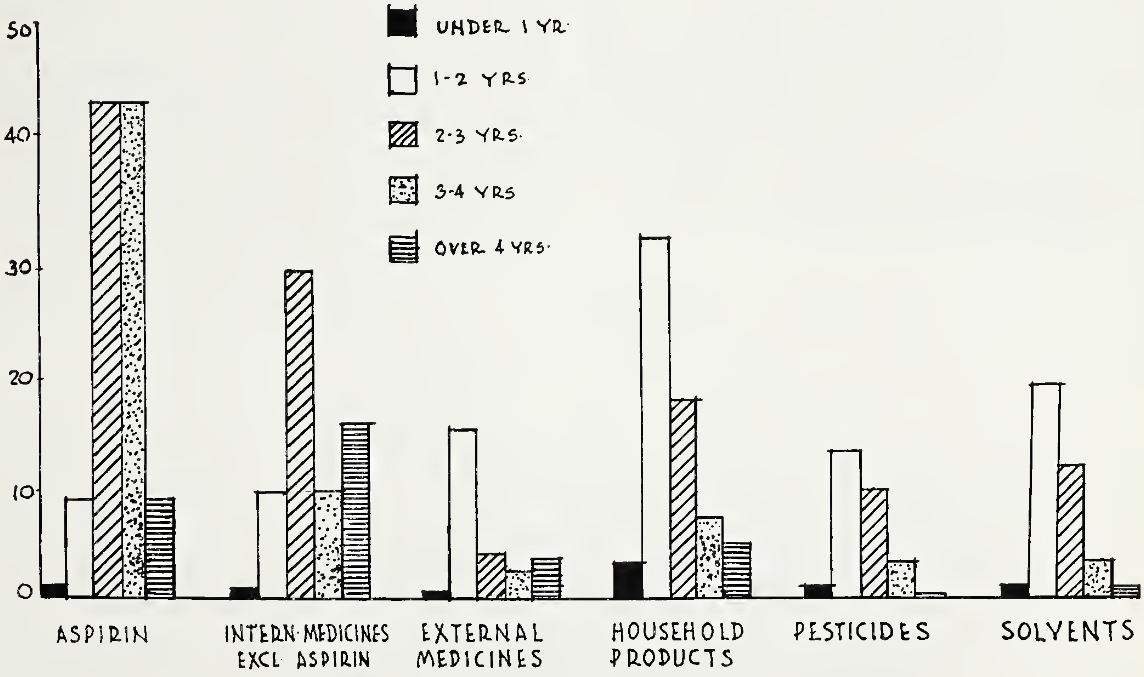

FIGURE 3

bleaches, cleaning and other sanitizing agents, solvents [petroleum hydrocarbons] and pesticides) took the greatest toll between one and two years.

These figures point clearly to the fact that the type of poisoning by age is directly related to a child's growth and development. At one year of age his field is limited to what he finds while creeping about on the floor, and under the sink where one usually finds the household cleaners, pesticides and cans of kerosene stored. As his walking and climbing skills advance, he gets up to drawers, medicine cabinets and shelves where medications are kept. The older child tends to develop some degree of caution and discrimination, with the result that over the age of four, the incidence of accidental poisoning from all causes falls off sharply—from 65 per cent of the total between ages one and three to 10 per cent* of the total after the fourth year. The small number of cases under the age of one year (2 per cent of the total) undoubtedly represents (1.) greater parental supervision and (2.) lesser ability to reach potentially toxic substances.

DISCUSSION

It would seem from this study and others that, since medications cause the majority of poisoning in children, physicians must accept some of the responsibility for correcting the situation. A little thought on the part of physicians might go far toward preventing many instances of poisoning. Prescribing of smaller amounts of drugs with refills as needed would seem safer than allowing larger amounts of drugs to be left about the house within the reach of children. The physician who while making house calls spies an open shelf or medicine cabinet well stocked with attractive colored and flavored medicines should be alert to the potential hazard presented by this situation and should advise the parents accordingly. A brief word on the subject of accidental poisoning during the child's monthly visits might well alert the mother to the problem before the child reaches the stage of ambulation. Finally, physicians should actively support the passage of legislation which makes accidental poisoning less likely to occur, and less hazardous when it does occur. In Connecticut the active support given by the State Chapter of the American Academy of Pediatrics and the Connecticut State Medical Society aided immeasurably the passage of a hazardous substance labeling bill during the last session of legislature. Education of ourselves as physicians as to the hazards involved in this situation will make us far better prepared to carry on a vigorous campaign of lay education which must certainly follow if the problem is to be solved, and needless death and disability prevented.

ACKNOWLEDGMENT

The kind assistance of Dr. Herman Yannet of the Southbury Training School in editing and criticising this paper is gratefully acknowledged.

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* This figure is somewhat higher due to the inclusion of several adult cases that were reported.

THE THERAPY OF PANCREATIC INFLAMMATORY DISEASE

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SUMMARY

The treatment of pancreatic inflammatory disease is presented in two phases, that of acute inflammation and that of chronic pancreatitis and other sequellae of the acute form. Vigorous medical therapy is advocated in all patients with the acute disease. These include drugs, transfusions, steroids within limits, infusions, nasogastric suction, antibiotics, and enzyme inhibitors. Surgical complications may develop.

Surgical therapy in chronic pancreatitis is more efficacious than medical and calls for an eradication of biliary tract disease as a first step. Various types of operations are described.

The treatment of pancreatic inflammatory disease can be resolved into two phases: (1) the therapy of acute inflammations, and (2) the treatment of chronic pancreatitis and other sequellae of acute pancreatitis.

ACUTE PANCREATITIS

In acute pancreatitis the immediate problem is a choice between operative and nonoperative therapy. In those patients in whom the diagnosis can be established, a comparison of the mortality of the surgically treated (35-78 per cent) with the mortality reported for similar series handled medically (10-20 per cent) would indicate nonoperative management as the therapy of choice.[1,2] When laparotomy is necessary because of diagnostic difficulties, surgical manipulation is reduced to a minimum, viz., drainage of the lesser sac or a diversionary operation on the biliary tract in order to bypass a presumed common channel.[3] In all but the very mildest cases of pancreatitis, attempts to perform more extensive definite biliary tract surgery have always been followed by considerable increases in morbidity and mortality.[4,5]

Medical therapy should be vigorous in all patients, for it is never possible to predict from initial clinical appearances which case will regress rapidly and which will progress to serious complication. The therapeutic aims in acute pancreatitis are directed towards the relief of the systemic effects of the disease and towards a limiting of the local pathologic process of self digestion in and about the organ.[6] The general measures include:

(1) the treatment of pain, (2) the treatment of shock and electrolyte imbalance, (3) the treatment of disturbances of carbohydrate metabolism, and (4) the control of distension and paralytic ileus.

The therapies directed against the local pathology comprise:

(1) the prevention of suppuration, (2) the suppression of pancreatic secretion, (3) the relaxation of the sphincteric mechanism, and (4) the neutralization of ferment activity.

Morphine and other narcotics may effectively relieve pancreatic pain but their stimulation of sphincter tone may intensify the anatomic basis for pancreatitis at the very moment of temporary symptomatic relief.[7] Spasmolytic drugs such as Demerol, atropine, and banthine, not only effectively dull pain but at the same time induce relaxation of the sphincter. Banthine appears to be the drug of choice because of its additional pharmocologic effects which include suppression of gastric acid and inhibition of pancreatic secretion.[8,9]

Intravenous procaine hydrochloride, paravertebral sympathetic and splanchnic block, and epidural injections, either fractional or continuous, have been used for analgesia in those patients whose pain has been refractory to simple medication.[10,11,12]

From the Department of Surgery, the Mount Sinai Hospital, NYC. Presented at the 32nd Connecticut Clinical Congress in Hartford, December 12, 1957

While some have ascribed to these nerve block methods the additional physiologic benefits of increase in pancreatic blood flow and suppression of pancreatic secretion, the employment of nerve blockade has been advocated only in conjunction with other therapies and not as a substitute.[13]

Every effort should be made to overcome the shock of acute pancreatitis, which is always an outstanding complaint and often out of proportion to other signs and symptoms. The extent to which the blood volume is decreased and the beneficial effect which its restoration by whole blood, serum albumin, and other plasma expanders have upon the course of clinical pancreatitis has only been appreciated in the past few years; and the recent remarkable fall in initial mortality in the medically treated cases is probably due to strict attention to correction of shock by adequate transfusion.[14]

When adrenocortical insufficiency is thought to contribute to the clinical shock, ACTH and cortical steroids have been advised.[15] Moreover, there have been a number of reports in which clinical benefit has been derived from the use of steroids in patients in whom shock has not been a problem.[16–19] On the other hand, there are a number of experimental studies, postmortem investigations, and even two documented deaths due to pancreatic necrosis in children following ACTH, which would indicate that ACTH and the adrenal corticosteroids are capable of inducing pathologic changes in the pancreatic parenchyma.[20–23] These reports coupled with physiologic studies which demonstrate that ACTH and the steroids diminish the secretion of fluid and enzyme by the pancreas,[24,25] raise the question as to whether the suppression of pancreatic secretion by these hormones is, in fact, due to pancreatic injury. Therefore, until such possibility is disproven, the use of ACTH and the steroids in acute pancreatitis must be limited to those patients who display adrenocortical deficiency.

Deficits in serum sodium, potassium, and calcium derive not only from the inherent stress reaction in acute pancreatitis but also from diminished intake, removal by nasogastric suction, and physiologic loss in exudation and intestinal secretion. These deficits must be corrected by infusion in order to maintain normal blood volume, normal blood pressure, and adequate renal filtration. Occasionally, parathormone is necessary to relieve hypocalcemic tetany when intravenous calcium gluconate is unable to do so.[26] Glucose must be administered cautiously for it may aggravate a diabetic state precipitated by the pancreatitis. When hyperglycemia and glycosuria are pronounced and diabetic acidosis impending, small doses of insulin may be required. Large amounts of insulin are rarely necessary and are dangerous for reactive hypoglycemia is a potent stimulus to pancreatic enzyme secretion.

The treatment of ileus and control of abdominal distension are accomplished by stopping oral feedings and by the use of nasogastric suction. These maneuvers contribute to the suppression of pancreatic secretion by removing HCl from the stomach and thereby diminishing the acid-secretin mechanism of pancreatic secretion. There results a "splinting of the pancreas" and an interference with the pathogenetic cycle which produces extension of pathology.

The prevention of suppuration and the late infectious complications of pancreatitis can be accomplished by the use of broad spectrum antibiotics, penicillin or the tetracyclines.[27] Chemotherapy has all but eliminated the late deaths in acute pancreatitis by preventing abscess formation in the lesser sac, in the subphrenic space, and in the pancreas. If a patient survives the initial phase of illness, mortality is unlikely, morbidity minimal, and rapid recovery the rule.

Measures to suppress the pancreatic secretion include: (1) the withholding of food, (2) nasogastric suction, (3) autonomic blockade by drugs or injection, (4) irradiation of the pancreas,[28] and (5) inhibition of cellular function. Drugs capable of suppressing pancreatic secretion at the cellular level are just becoming available. Of these, Diamox, which blocks secretion by interfering with the carbonic anhydrase, is now under clinical investigation.[29,30] Its therapeutic value in clinical pancreatitis is still subjudice but its effectiveness in drying up external pancreatic fistulas appears to be established.[31]

Control of the toxicity and local pathology of pancreatitis has been attempted by the use of substances which specifically inhibit the activated pancreatic enzymes. Soy bean trypsin inhibitor and quinine lipase inhibitor have been used to lessen shock and suppress local necrosis but the clinical and experimental reports have not been convincing and the administration of these enzyme inhibitors is not without danger.[32–34] Antienzyme compounds are desirable but they must be effective in areas of necrosis and must be safe for parenteral use.

The surgical complications of acute pancreatitis are: (1) abscess, (2) pseudocyst, and (3) pancreatic fistula. In pancreatic abscess, the surgical problem is not drainage per se, because this can be ordinarily done without technical difficulty, but rather the possibility of subsequent pancreatic fistula with the attendent deleterious effects of electrolyte loss, disturbance in digestion, and maceration of skin. Pancreatic fistulas have been treated by sclerosing agents, total excision whenever possible, implantation into the stomach or jejunum, and by sphincterotomy.[35, 36] Pancreatic cysts or pseudocysts are treated when, by virtue of size and situation, symptoms are produced by encroachment on other organs. The ideal procedure would be extirpation but this is not always feasible, especially in lesions of the head.[37] Simple evacuation and external drainage have been discarded because of the high incidence of recurrence and of external fistula.[38] Internal drainage may be accomplished by anastomosis of the cyst to the stomach, to the duodenum, or to the jejunum by what is generally accepted to be the procedure of choice, a cystojejunostomy Roux-en-Y, which eliminates the hazards of intestinal regurgitation into the cyst cavity.[39, 40]

There are three measures which may be of value in the prevention of recurrent attacks of pancreatitis following an initial single episode: (1) the avoidance of gluttony, (2) the interdiction of alcohol, and (3) the eradication of existing biliary tract pathology. There is no evidence, at present, which would completely justify any surgical procedure on the patient without biliary tract disease whose symptoms completely subside, with the expectation that such a measure would prevent subsequent attacks.

CHRONIC PANCREATITIS

The medical treatment of chronic pancreatitis leaves much to be desired. A high calory, high protein, low fat diet supplemented by vitamins is prescribed. The total caloric intake is divided into small meals to minimize the intensity of pancreatic stimulation by food. Alcohol must be eliminated. Carbohydrate restriction and insulin are necessary if diabetes is present. Substitution therapy of pancreatin or papaya is given to patients with a steatorrhea or enzyme deficiency. In patients in whom the gall bladder has been removed, a periodic relaxation of the sphincter may be achieved by the use of choleretics. Drugs such as banthine are useful in suppressing pancreatic secretion. These measures attempt to prevent high pressures in the pancreatic duct, to avoid stasis in the pancreatic and biliary tracts, and to maintain normal pressure relationships between the two systems.

In some cases, despite all medical therapy, pain, diarrhea, weight loss, and incapacity for work persists with resultant physical and mental deterioration often expressing itself in morphine and alcoholic addiction. Such patients have been subjected to surgical procedures, the variety of which attests to their indifferent success. The surgical procedures used in chronic pancreatitis may be grouped as follows:

(1) Operations on the biliary tract, (2) gastrointestinal diversionary procedures, (3) nerve section operations, and (4) procedures directed against pancreatic pathology.

The initial surgical attack in chronic pancreatitis is eradication of biliary tract disease. Removal of a diseased gall bladder or common duct stones will produce remission in about one third of the patients.[4] It would appear that the initial operation is the most rational time to explore the common duct and to determine whether there is obstruction at the papilla.[41] For relief of such obstruction, for diversion of the biliary flow from the pancreatic duct system, and for by-passing the pathology of the periampullary region, prolonged T tube drainage,[42] choledochoduodenostomy,[43] and choledochojejunostomy Roux Y have been advocated.[44] The long term results of such biliary decompression and diversion, however, have proved disappointing.[45]

Functional and organic obstruction in the periampullary region may also be relieved by operations on the sphincter of Oddi.[46–48] While good results have been reported for sphincterotomy in the treatment of chronic pancreatitis, this operation cannot be considered innocuous, for it has been complicated by fatal hemorrhage, stenosis of the terminal common duct, and even by the exacerbation of acute pancreatic necrosis.[49] In the acute phase of pancreatitis, sphincterotomy is contraindicated.[49] Although the operation has been hailed with enthusiasm by some surgeons for the relief of functional disorders of the sphincter, the poor results with it in the hands of others in the treatment of organic obstructions in pancreatic calcinosis, pancreatic duct fibrosis, and pancreatic cyst, have delayed its complete acceptance as a definitive procedure.[43, 50] It is difficult to explain how section of the sphincter can relieve the symptoms of pathology due to obstructions distal to the sphincter.

Gastrointestinal diversionary procedures are indicated to relieve mechanical obstructions of the stomach or duodenum due to extensive fibrosis or actual encroachment by cysts in the head. Although such obstruction may be treated by gastroenterostomy,[51] subtotal gastrectomy[52] has been advocated as a definitive operation with the rationale that diversion of the foodstuffs from the duodenum would lessen pancreatic secretion and thus put the pancreas to rest. Though sound in concept, the disappointing results with gastrectomy have not warranted its widespread acceptance.

Nerve surgery has been directed towards diminution of pancreatic secretion, increase of pancreatic blood flow, and relief of incapacitating pain. This approach has included such procedures as: (1) stripping of the choledochal nerves,[53] (2) splanchnic section,[54] (3) sympathectomy,[55–57] (4) vagisection,[58, 59] and (5) combinations of these with gastrointestinal diversionary operations.[51, 52] Though a beneficial effect upon the course of clinical and experimental pancreatitis has been reported for autonomic neurosurgery,[60, 61] the clinical and experimental observations of the majority have led to the conclusion that these nerve operations offer only temporary palliation.[56, 57, 62]

The direct surgical attack on the diseased pancreas includes: (1) procedures already discussed which are designed to relieve the complications of the inflammatory process such as in abscess, cyst, or fistula, (2) procedures which attempt to eradicate etiologic factors within the pancreas, viz., ductal obstruction due to fibrosis or calculi, and finally (3) those operations which aim at removal of the diseased parenchyma.

Obstruction within the pancreatic duct system has been relieved by sphincterotomy, pancreaticolithotomy,[63, 64] and by transection of the main pancreatic duct with reanastomosis to the jejunum.[65, 66] Ligation of the main pancreatic ducts in the hope of inducing fibrotic atrophy of parenchyma has been done with discouraging results.[59, 67] The most recent approach to relief of obstruction in the pancreatic tract has been procedures which anastomose the main pancreatic duct to a defunctionalized jejunal loop.[68, 69] This may be done in continuity or by a caudal decompression technique in which the distal pancreas is resected and its cut end implanted in the jejunum. Although, from a theoretic point of view, caudal anastomosis should be no more successful than sphincterotomy in decompression of the multiple sites of obstruction in the pancreatic tract of advanced chronic pancreatitis, this operation, if one judges from preliminary expressions from the major centers of pancreatic surgery, would appear to afford the most consistent and satisfactory results in patients with chronic pancreatitis. It seems likely that this benefit may derive not only from the ductal decompression but also from the ever increasing extent of left pancreas resection which is being done in preparation for anastomosis.

Pancreatic resections are performed to eradicate the diseased tissue in those individuals in whom relief has not been afforded by other measures. Resections of the left pancreas, which present no technical difficulty is applicable only to those unusual cases in which the disease process is most severe in the distal pancreas. In most instances, the pathology, if anything, is more severe in the head; distal pancreatectomy in such patients is of doubtful value, and total pancreatectomy hitherto has been considered necessary.[70–72] Total pancreatectomy, implying as it does, resection of the duodenum and a choledochoenteric anastomosis, is an operation of considerable morbidity and mortality, and may substitute the invalidism of severe malnutrition due to digestive and metabolic disturbances for the invalidism of unremitting pain.[73–76] Recently, this Hobson's choice has been avoided by the performance of a "near-total pancreatectomy", a literally shelling out of the pancreatic head from the duodenal curve with preservation intact of both the duodenum and the biliary tract.[77] If this operation proves to be feasible, it may be the long sought answer to the intractible case.

A list of 77 references may be obtained from the author.

BIOPSY OF THE CERVIX: A STUDY OF 200 CASES

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SINCE the advent of vaginal cytology the diagnosis of early carcinoma of the cervix has assumed increasing importance in gynecologic practice. For many years most gynecologists have relied on punch biopsy techniques to establish the diagnosis of cervical lesions. This technique has varied in the number of specimens taken from the cervix, and in conjunction with the Schiller iodine test, in the choice of biopsy site. The importance of obtaining the squamocolumnar junction for the diagnosis of carcinoma in situ has been documented by a number of investigators.

From a routine observation of punch biopsies of the cervix we were impressed by the number of instances where the punch biopsy had failed to obtain adequate tissue.

In 1954 the sharp cone biopsy technique was instituted as a means of obtaining more representative material. The present report deals with a critical survey of the various methods of cervical biopsy as performed at the Hartford Hospital.

METHODS

To evaluate the adequacy of various techniques of cervical biopsy the slides from 200 consecutive specimens were reviewed. The slides were carefully examined to determine the presence or absence of the squamocolumnar junction. Those that contained a good junction were classified as satisfactory, those with just squamous epithelium, endocervical epithelium or no epithelium were classified as unsatisfactory. The material was also classified according to type of biopsy: punch, cold knife cone or electric cautery cone. The punch biopsies were also evaluated according to the number of fragments submitted.

Before presenting the data a brief discussion of the cold knife cone biopsy technique used is pertinent. This procedure requires hospitalization of the patient. The method used is to expose the cervix and place a suture through the lateral aspect on each side. Wide cold knife conization of the cervix is carried out. The lateral sutures serve as hemostatic ligatures when tied. A large piece of Oxycel is placed at the cervix and the vagina is loosely packed with a gauze sponge which is removed in twenty-four hours.

Once the specimen of cervix is removed it is immediately pinned on to a strip of cardboard with the epithelial surface face up and fixed in formalin.

RESULTS

The series was composed of 168 punch, 25 cold knife cones and 7 electric cautery biopsies (Table I). Fifty-nine (35 per cent) of the punch biopsies were considered satisfactory, 22 (88 per cent) knife cones were satisfactory and 3 (42 per cent) electric

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SUMMARY

Two hundred consecutive cases of cervical biopsy are reviewed. They are classified in types according to the method used: punch, electric cautery or cold knife cone. If adequate squamocolumnar junction is present the specimens are considered satisfactory. Critical analysis of the results shows that a large number of cases are unsatisfactory and that the cold knife cone biopsy is the most effective method used to establish the diagnosis in early lesions of the cervix.

From the Departments of Obstetrics and Gynecology and Pathology, Hartford Hospital, Hartford, Connecticut cautery biopsies were acceptable. The overall percentage of satisfactory biopsies was 42.

Table I

200 CONSECUTIVE CERVICAL BIOPSIES

TYPE	SATIS-FACTORY	UNSATIS-FACTORY	TOTAL	% SATISFACTORY
Punch	59	109	168	35
Cone	22	3	25	88
Cautery	3	4	7	42
Totals	84	116	200	42

Further break down of the punch biopsies into the number of fragments submitted (Table II) showed that as the number of fragments increased the chances of obtaining satisfactory junction increased. In the group of one to three fragments 28 or 28 per cent were satisfactory. In the remaining group of four or more fragments 32 or 46 per cent were satisfactory.

Table II

PUNCH BIOPSY OF CERVIX

NUMBER OF FRAGMENTS SUBMITTED	TOTAL CASES	SATIS-FACTORY	% SATISFACTORY	
1-3	99	28	28	
4-6	61	29	47	46
7+	8	3	36	

A large number of the 200 cases had had cytologic studies prior to biopsy. Correlation of histologic findings with vaginal cytology was made in the hope that this might further delineate the most desirable method of study of cervical disease.

The punch biopsy material (one to three fragments submitted) and the negative smears (Table III) show good correlation except in one case of a false negative smear and positive biopsy for invasive cancer. In the group with positive smears the diagnosis was confirmed in two out of the four cases. However, in one case atypical hyperplasia was found on punch biopsy but later cold knife cone biopsy showed definite intraepithelial carcinoma.

Table III

PUNCH BIOPSY CORRELATED WITH VAGINAL SMEARS

VAGINAL SMEARS		PUNCH BIOPSY, 1-3 FRAGMENTS SUBMITTED	
Negative	38	Chronic Cervicitis	37
		Invasive Cancer	1
Doubtful (Class III)	2	Chronic Cervicitis	2
Positive (Class IV)	4	Carcinoma in Situ	2
		Atypical Hyperplasia (Cone-Carcinoma in Situ)	1
		Chronic Cervicitis	1

The correlation of the punch biopsies with four or more fragments (Table IV) and the vaginal smear was slightly better. In the cases with positive smears five out of the eight cases were proven to have carcinoma. The 46 negative smears showed no cancer on biopsy by this method.

Table IV

PUNCH BIOPSY CORRELATED WITH VAGINAL SMEARS

VAGINAL SMEARS		PUNCH BIOPSY, 4+ FRAGMENTS SUBMITTED	
Negative	46	Chronic Cervicitis	44
		Atypical Hyperplasia	1
		Squamous Metaplasia	1
Doubtful Class III	1	Chronic Cervicitis	1
Positive Class IV	8	Chronic Cervicitis	1
		Chronic Cervicitis with Squamous Metaplasia	2
		Invasive Carcinoma	4
		Carcinoma in Situ	1

Table V

CONE BIOPSY CORRELATED WITH VAGINAL SMEARS

TOTAL CASES 25	
14 Positive Vaginal Smears	3 Eliminated (Prenatal Cases) 10 Carcinoma in Situ 1 Chronic Cervicitis with Atypical Epithelial Hyperplasia
7 Negative Vaginal Smears	6 Chronic Cervicitis 1 Chronic Cervicitis with Atypical Epithelial Hyperplasia
3 With No Vaginal Smears	3 Chronic Cervicitis
1 Unsatisfactory Smear	1 Chronic Cervicitis

Table V shows the results of the tissue diagnosis obtained by cone biopsy with previously obtained cytologic studies. In the 14 cases with positive cytology smears there were ten cases of intraepithelial carcinoma. If we eliminate from consideration three cases showing positive smears during pregnancy, there were 11 positive vaginal smears with tissue diagnosis of intraepithelial carcinoma in 10.

The overall cancer diagnosis (Table VI) by the punch method in 168 cases was 4.7 per cent, with the cold knife cone was 40 per cent.

TABLE VI
CANCER DIAGNOSIS

	TOTAL CASES			PER CENT
Punch Biopsy	168	Carcinoma in Situ	3	
		Invasive Carcinoma	5	
				4.7
Cone Biopsy	25	Carcinoma in Situ	10	
				40

DISCUSSION

The results obtained by cone biopsy on cases with positive vaginal cytology showed a 90 per cent incidence of carcinoma, compared to a 58 per cent incidence in a similar group in which the multiple punch biopsy technique was used. It is of interest to note that in the latter group five of the six cases had invasive cancer, whereas ten cases diagnosed by the cone technique were of the intraepithelial variety.

This data further emphasizes the desirability of the cone biopsy technique in cases where clinical examination of the cervix shows no evidence of disease but positive cytology smears have been obtained. Where obvious gross disease is present there is no need for such an extensive procedure. The punch biopsy will yield adequate material in this instance.

Admittedly the cone biopsy is a procedure necessitating hospitalization of the patient but this is justified in the individual with positive vaginal cytology smears and a cervix that appears free from disease. The large amount of tissue from the proper site aids the pathologist in establishing the correct diagnosis with reasonable assurance. This method avoids the unfortunate occurrence of making a diagnosis of carcinoma *in situ* from punch biopsy material, wherein an adjacent area shows full blown invasive cancer.

The two most common complications that have been reported with the cone biopsy technique are bleeding, either at the time of operation or postoperatively, and stenosis of the cervical canal. With the technique outlined above the amount of bleeding at the time of operation is reduced to a minimum. The use of additional sutures at the time of operation if needed to control bleeding and the Oxycel packing should be adequate to avoid any postoperative hemorrhage.

Cervical stenosis can be avoided if the patient is seen frequently in the office and the cervical canal probed gently. This procedure should be repeated monthly.

The incidence of false negative vaginal smears is low enough for the recommendation that routine punch biopsy in cases with negative vaginal cytology smears be eliminated entirely unless, as previously mentioned, a suspicious lesion is on the cervix.

CONCLUSION

The data presented show that to obtain the best results for accurate diagnosis either the knife cone biopsy or the multiple, four or more fragments, punch biopsy technique must be used.

From the study we conclude:

(1) With a negative (Class I or II) vaginal smear and a grossly normal appearing cervix, biopsy is not indicated.

(2) With suspicious (Class III) or positive smears (Class IV or V), either the multiple, four or more, punch biopsy should be used in conjunction with Schiller's solution or

(3) The procedure of choice, cold knife conization of the cervix.

IDIOPATHIC PNEUMOPERITONEUM

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SUMMARY

Idiopathic pneumoperitoneum is a rare condition in which there is free intraperitoneal air in the absence of peritonitis. The etiology of this condition is varied and may be due to:

1. a cause not identified; 2. "forme fruste" ulcerations in the gastrointestinal tract; 3. associated pulmonary disease, especially lower lobe pneumonia and emphysema with blebs adherent to the diaphram; 4. negative intraperitoneal pressure sucking air into the peritoneum through the Fallopian tubes, especially in the postpartum patient; 5. rupture of cysts occurring in the intestinal wall.

Patients with idiopathic pneumoperitoneum often complain of chest pain, appear well clinically, and have a history of epigastric distress. The diagnosis may be established by x-ray film of the chest. Treatment of these cases should be conservative.

A case of idiopathic pneumoperitoneum which may represent an example of pneumatosis cystoides intestinorum is presented. Unfortunately no definite etiology for this patient's pneumoperitoneum could be established.

Under ordinary circumstances free air beneath the diaphragm, as visualized by x-ray, merely elucidates the cause of a peritonitis as a ruptured viscus and confirms the need for immediate surgery in order to prevent continued bacterial contamination of the peritoneal cavity. Occasionally free air beneath the diaphragm is a completely unexpected finding in a radiograph taken for some other reason. The problem then arises as to how the air got there and, more important, what to do about it. The purpose of this paper is to enumerate the possible causes and to present a case which illustrates the problem.

Most authors agree that idiopathic pneumoperitoneum should be defined as a condition in which there is free intraperitoneal air not of therapeutic or diagnostic origin and in which there is no peritonitis.[4] Such a situation is rare, to be sure, but well documented cases can be found in the world's literature. Trachtner *et al* reported the case of a 59 year old female with a long history of recurrent abdominal pain and a previous episode of hematemesis. X-ray revealed free intraperitoneal air. Upper gastrointestinal series and barium enema showed nothing abnormal except for moderate gastric retention. The patient was observed for four and a half years and had repeated radiologic examinations, all of which revealed pneumoperitoneum. Finally she was operated on; the only evidence suggestive of ulcer was some slight thickening in the duodenal cap. There was no peritonitis. There was, however, a segment of ileum whose serosa was studded with small, thickened, white areas. Shortly after operation she had no evidence of pneumoperitoneum and was relieved of her symptomatology.[7] Bean and Garrett reported the case of a 23 year old white female who was 13 days postpartum. She experienced sudden, severe pain in the right lower chest. X-ray of the chest revealed free subdiaphragmatic air. Because of some fever, considerable epigastric tenderness, and a past history suggestive of peptic ulcer, the diagnosis of ruptured peptic ulcer was made. Upon opening the peritoneum, air gushed forth, but there was no peritonitis and no evidence of any gastrointestinal lesion. Postoperatively the patient did well and had no recurrence of her pain.[2]

There are a number of ways in which air can enter the peritoneal cavity without the accompanying massive or continuous dose of bacteria which is necessary to produce peritonitis. In the female the Fallopian tubes are a natural route, utilized in the Rubin test which, however, requires pressure to introduce the gas. Eisenmenger inserted a rubber ball into his rectum and found that in the knee-elbow position a negative pressure of 50 to 60 millimeters of water developed. From this he estimated that in the knee-chest position a negative intraperitoneal pressure of as much as 90 millimeters of water might develop. Thus, in the knee-chest position air might be sucked through the Fallopian tubes into the peritoneal cavity and result in pneumoperitoneum.[4] There are a number of cases in the obstetrical literature in which young postpartum women after doing knee-chest exercises or lifting weights have developed pain, usually in the lower right chest and supraclavicular areas. X-ray of the chest in these women revealed pneumoperitoneum. Physical examination or operation did not disclose peritonitis, and conservative management uniformly resulted in a cure.[1,2,5] Bean and Garrett refer to the report of an 81 year old female with carcinoma of the cervix who developed pneumoperitoneum after retching in the knee-chest position.[2] Such cases illustrate why knee-chest exercises in the postpartum female or in the woman with significant gynecologic disease may be dangerous.

Idiopathic pneumoperitoneum has been reported in association with pulmonary disease.[1,2,4] Lower lobe pneumonia has, on occasion, been associated with idiopathic pneumoperitoneum. The mechanism for this is certainly obscure and largely conjectural. Perhaps the pressure created by coughing may force air trapped in an infected lung through an incompetent diaphragmatic hiatal opening or through a congenitally weak, thin portion of the diaphragm. If so, because of the contaminated source of the air, peritonitis might develop, but such is not the case. Another explanation for a pulmonary source of intraperitoneal air is the rupture through the diaphragm of an emphysematous bleb adherent to it. This may be the mechanism occurring in pneumonia so that the intraperitoneal air might come from an uninfected pulmonary segment and thus not result in peritonitis.

Occasionally surgeons have operated on a patient with a perforated ulcer and found the ulcer already sealed over; the opening into the peritoneal cavity no longer patent. Very small ulcerations in the stomach and duodenum may perforate and permit air, but very few bacteria, to gain access to the peritoneum. Such ulcers, known as "forme fruste" ulcers, may account for some cases of idiopathic pneumoperitoneum. Presumably these ulcers are peptic in origin.[1]

Another intestinal source of free intraperitoneal air is the rupture of gas-containing cysts of the intestinal wall. This interesting condition is known as pneumatosis cystoides intestinorum. Attempts have been made to collect all the reported cases, the total number ranging from 150 to 189.[1,6] This is, therefore, a rare condition. Kreeger and Littman reported a most interesting case. Their patient was a 60 year old man who one year previously had had a normal x-ray study of the upper gastrointestinal tract in which the head of barium reached the midtransverse colon. He had also had a sigmoidoscopy which was negative except for hemorrhoids. Because of intermittent diarrhea and constipation, a barium enema and sigmoidoscopy were performed. Both of these revealed a large number of intramural translucent cysts. Biopsy specimens were taken from four of these. Pathologic study showed thin walled cysts lined with endothelial or multinucleated giant cells. In places there was no lining.[4] Somerville reported the case of a 55 year old woman with a long history of ulcer who was explored surgically because of pneumoperitoneum and suspected perforated peptic ulcer. At operation gas rushed from the peritoneum, but there was no peritonitis. The pylorus was stenotic and scarred from longstanding ulcer, but there was no active ulcer. Instead, many small gas cysts were found in the third portion of the duodenum, jejunum, and jejunal mesentery. The rupture of some of these cysts was presumed to be the cause of the pneumoperitoneum. The origin of such cysts is unknown; the many theories include neoplasia, infection, infestation, and intralymphatic fermentation of chyle.[6] Perhaps the most generally accepted is the mechanical theory in which it is presumed that air is forced by peristalsis or vomiting through minute ulcerations in the bowel wall into the lymphatics where it is trapped and forms a cyst. Support for this mechanism stems mainly from the frequent occurrence of stenotic peptic ulcer in patients who have gas cysts of the small intestine. In this case the vomiting may force air into the lymphatics past the stenotic pylorus into the distal bowel where it collects in cysts. In the large bowel the same situation may obtain in patients with spastic colitis. Peristalsis could force air into the lymphatics through small stercoral ulcerations.

CASE REPORT

Mrs. E. M., a 31 year old white housewife and fashion editor, was admitted to the Hartford Hospital because of pneumoperitoneum. She had been entirely well until one month prior to admission when she developed a "cold" and some epigastric distress. The "cold" subsided, but the epigastric distress persisted and was described as heartburn occurring about three hours after her evening meal. It was relieved by "Fizrin". On several occasions she noted heartburn about one and a half hours after her noon meal. She noted one black stool during the week before admission. Otherwise there was no change in her bowel habit.

Two nights prior to admission she experienced the sudden onset of severe epigastric, substernal and interscapular pain which lasted about one-half hour and subsided. She awoke the following morning with an ache in both supraclavicular areas. About one-half hour after breakfast, she again experienced an attack of severe pain which this time was located only in the interscapular and supraclavicular areas. This too subsided shortly. She then consulted her physician who ordered an x-ray of the chest. This revealed free intraperitoneal air.

She was para three, gravida three. Her youngest child was one year old. Her last menstrual period was three weeks prior to admission and was normal in every respect. She denied douching, knee-chest exercises, or unusual lifting except for picking up her children, an exercise to which she was accustomed.

Physical examination revealed a well developed, well nourished, thin white female in no distress. Vital signs were normal except for an oral temperature of 99.6°F. There were no positive physical findings. Her abdomen was soft without tenderness. Bowel sounds were normal. Rectal and pelvic examinations were normal.

Laboratory studies included a normal hemogram, sedimentation rate, and nonprotein nitrogen. A Papanicalaou smear of vaginal secretions was reported class I. Upper gastrointestinal x-ray series revealed normal peristalsis of the stomach with normal emptying. The duodenal cap filled normally. Mucosal pattern of the stomach and duodenum were normal, and no free barium was seen. Free air was again noted in the peritoneal cavity. X-ray examination of the chest, abdomen, gall bladder, and large bowel were all within normal limits except for decreasing amounts of free air.

The patient was seen by a surgical consultant who thought that she probably had a perforated peptic ulcer of the "forme fruste" type. He advised conservative ulcer treatment, and this was done. The day following admission the patient had an oral temperature of 100.2°F, but subsequently she was afebrile. Except for a brief episode four days after admission she had no pain or other symptoms. On this occasion she complained of dull pain in the left upper quadrant of the abdomen and in the left scapular region. Examination revealed only slight tenderness on deep palpation in the left paraumbilical area.

Since her discharge from the hospital on the seventh hospital day she has been entirely well except for some slight bright red bleeding from the rectum. A proctologic consultant found an anal fissure to be the cause of the bleeding. No immediate surgical treatment was indicated. Two months after discharge she had follow-up x-ray examination which showed no evidence of pneumoperitoneum. No organic lesions of the gastrointestinal tract were demonstrated. The splenic flexure was described as of the diaphragmatic type with a rather acute angulation, and at times a tendency to cause accumulation of air proximal to it was noted.

DISCUSSION AND CONCLUSIONS

This case presents some features in common with others reported in the literature. Our patient presented herself complaining primarily of pain in the chest and top of the shoulder, appeared clinically well, but had epigastric distress suggestive of peptic ulcer. The diagnosis was made not on a flat x-ray plate of the abdomen, but by an x-ray of the chest. Conservative management was curative. In the female the vaginal route for free air in the peritoneal cavity should always be suspected, but in our patient careful history and physical examination failed to reveal any predisposing gynecologic condition. Her youngest baby was a year old; she gave no history of douching; and she had not been doing knee-chest exercises. Although she did have a story to suggest a peptic ulcer, x-ray studies did not confirm this diagnosis. Her upper gastrointestinal symptomatology, in the absence of predisposing gynecologic and pulmonary factors, seems to point to the gastrointestinal tract as the probable source of the free air. Although a peptic ulcer of the "forme fruste" type might have been present, some form of pneumatosis cystoides intestinorum is a distinct possibility, especially in view of the fact that she showed a tendency to accumulate air proximal to an acutely angulated sigmoid flexure.

Although laparotomy usually results in relief of symptoms, the management of idiopathic pneumoperitoneum should be conservative. If symptoms persist paracentesis may be employed to reduce the intra-abdominal pressure. When there is upper gastrointestinal symptomatology, the possibility of a "forme fruste" ulceration should be suspected. These patients should be treated medically as if they had an active peptic ulcer.

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GASTRIC VOLVULUS WITH MASSIVE HEMORRHAGE DUE TO LEIOMYOMA

Case Report

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LEIOMYOMA of the stomach is a relatively rare clinical occurrence. These tumors arising from smooth muscle represent roughly 40 per cent of benign tumors of gastric origin which, as a group, comprise only five per cent of all gastric neoplasms. It is generally accepted that hemorrhage is the most common clinical symptom associated with gastric leiomyoma.[1] Bazzano and Hood[2] state that this lesion is among the causes of what they call chronic, partial or intermittent volvulus of the stomach. At the time of their report in 1952 there were less than 200 cases available in the literature. Ker[3] described a case in 1955 remarkably similar to the one serving as the subject of this report. In his case a leiomyoma arose from the mid lesser curvature and by virtue of its large size and pedunculated nature produced volvulus by carrying the lesser curvature 180° about the long axis of the stomach. The prominent symptom in Ker's case was obstruction rather than hemorrhage.

The gross clinical characteristics of leiomyomata predispose this lesion to produce volvulus. Yardumian and Swickley[4] report that the lesion is more often pedunculated and extragastric in position rather than submucosal or intragastric. The former circumstance, especially with a mid lesser curvature lesion aided by gravity in the erect position, would tend to produce a mechanical situation ideal for the development of a rotation of the lesser curvature about the long axis of the stomach. In addition, the extragastric position of these tumors makes them difficult to depict radiographically because of failure to displace the contrast medium within the gastric lumen. This was true in respect to the case described below.

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SUMMARY

An unusual case of a benign gastric leiomyoma producing volvulus and hemorrhage is discussed. Early x-ray examination is emphasized as a helpful screening test in gastrointestinal bleeding. Subtotal gastrectomy is proposed as the operation of choice for lesions of this type.

CASE REPORT

C.A.P., a 79 year old white female was admitted with a history of sudden onset of weakness, severe dyspepsia and tarry stools two days prior to hospitalization. On the day of admission she vomited gross blood. There was no history of abdominal symptoms prior to the present illness.

Physical examination on admission revealed a well nourished, elderly female whose salient physical findings were those of acute blood loss. She was pallid, perspiring freely and

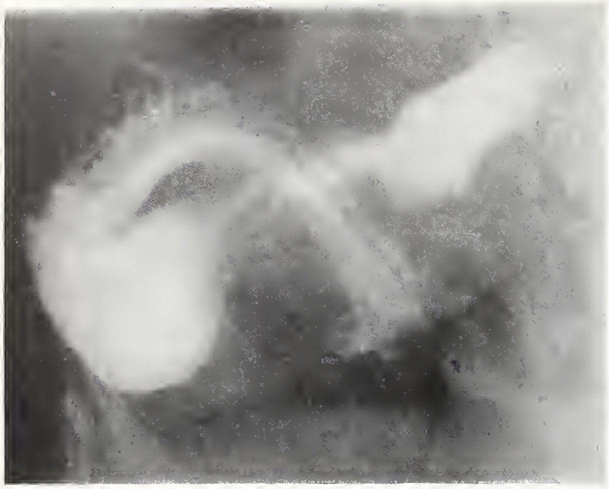

Figure 1

Gastric fillup demonstrating volvulus. No filling defect apparent suggestive of tumor.

in hypovolemic collapse. Resuscitative measures were rapidly instituted and with transfusion of five units of whole blood over a twelve hour period the patient's clinical condition rapidly improved and the hematocrit rose from an initial value of 18 to 30.

She was given an ulcer diet but noted severe substernal and epigastric distress following feedings and was unable to take adequate fluids by mouth. Because of this fact the possibility of an incarcerated diaphragmatic hernia was considered and early x-ray examination was decided upon.

Accordingly, on her second hospital day an upper gastrointestinal examination was carried out which revealed a volvulus of the stomach (Fig. 1). There was no suggestion of a tumor mass or ulcer by x-ray.

Laparotomy was then performed immediately and a large bosselated, pedunculated leiomyoma of the mid lesser curvature was encountered (Fig. 2). This had initiated a volvulus in which the lesser curvature had been carried 180° anteriorly and to the left of the sagittal plane to lie inferior to the greater curvature. A subtotal gastrectomy was carried out without event. Postoperatively the patient's course was characterized by progressive recovery and she was discharged from the hospital on the ninth postoperative day.

Both gross and microscopical examination of the specimen proved it to be a benign leiomyoma. There was no gross ulceration of the gastric mucosa overlying the surface of the tumor although many petechial hemorrhages were observed (Fig. 3).

DISCUSSION

In retrospect, the patient's epigastric distress and inability to ingest food by mouth were manifestations of the rotational change in the stomach interfering with normal passage of food through the organ. The failure to visualize gross ulceration of the mucous membrane overlying the lesion leads us to suspect that the vascular changes produced by the volvulus might have precipitated hemorrhage in this instance.

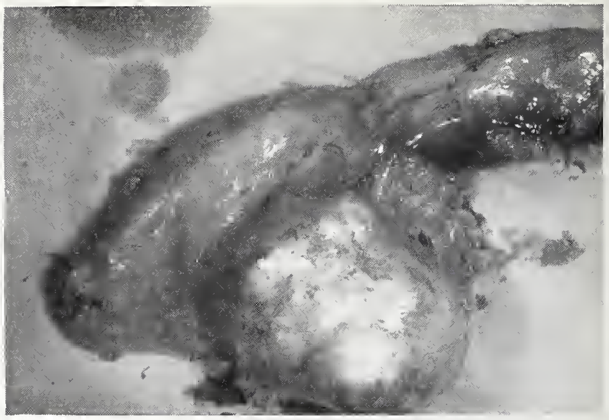

Figure 2

The resected specimen showing a large tumor of the lesser curvature extragastric in locale.

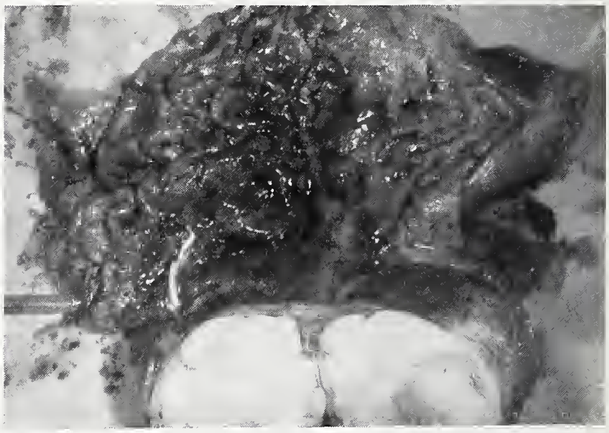

Figure 3

The cut specimen showing well encapsulated, discrete tumor without necrosis. Gastric mucosa free of gross ulceration.

The frequent location of the leiomyoma in an extragastric position and the tendency of this lesion to be pedunculated produces an ideal situation for rotational changes of this kind. Their extragastric position also permits these lesions to be undetected by the usual radiographic methods of diagnosis.

In all cases of gastrointestinal hemorrhage, the site of which is obscure, lesions of this type must be considered in the differential diagnosis. It is emphasized that, wherever possible, early x-ray examination is indicated in massive GI bleeding because of the possibility of defining a lesion which can be best controlled by immediate operation.

Because of poor overall results following wedge excisions and sleeve resections of the stomach and because of an appreciable incidence of leiomyosarcoma among these smooth muscle tumors, a subtotal resection with a wide margin secured about the tumor is felt to be the operative procedure of choice.

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THE SPHYGMOMANOMETER CUFF PAIN TEST

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SUMMARY

The technique of performing the sphygmomanometer cuff pain test is presented. Brief comparison is made with other tests available. These indicate that the sphygmomanometer cuff pain test is very sensitive and that it is the only quantitative test available. In the hands of skillful examiners, the test may be used as a guide to operation and to anticoagulant therapy. Additional uses for the sphygmomanometer cuff pain test also are suggested.

INTRODUCTION

In 1934 John Homans, writing in the *New England Journal of Medicine,* called attention to the casual relationship between deep thrombophlebitis and pulmonary embolism. Five years later Ochsner and DeBakey published in the *Southern Surgeon* a classic paper on thrombophlebitis and phlebothrombosis. Homans spoke of the latter as the "quiet thrombophlebitis" and Piulachs of Barcelona has stated that phlebothrombosis and thrombophlebitis are "two successive phases of the same pathological disorder." Regardless of terminology, we need only realize that there are two entities or phases of the phlebitic process. In thrombophlebitis the clot is usually adherent to the vein wall and in phlebothrombosis, it is not; the two phases may, of course, coexist. Thrombophlebitis classically is diagnosed by:

(1) increased temperature locally and generally; (2) increased pulse rate; (3) swelling; (4) pain; (5) redness; (6) distended veins; (7) and there may or may not be discoloration of the entire limb.

Phlebothrombosis, on the other hand, may have only one or two of these signs or symptoms or may have none at all. Because of the lack of attachment of the clot, the condition is frequently first recognized after a pulmonary embolism has resulted, and in some instances the condition is first recognized at the autopsy table. A simple clinical test which might aid in the early detection of intravascular clotting would be a valuable addition to our diagnostic armamentarium. This point was mentioned by DeBakey in an exhaustive collective review which appeared in the *International Abstracts of Surgery.*

The sphygmomanometer cuff pain test was first

Presented at the International Society of Angiology Congress, Atlantic City, New Jersey, October 21, 1957 reported in *Science* on June 18, 1954. A more detailed report including case histories was published by this author in the *Journal of the American Medical Association* on August 28, 1954. Since its introduction, the sphygmomanometer cuff pain test has been employed by the author and his staff many thousands of times. The test requires no laboratory equipment and only about ten minutes to learn and two minutes to perform. The only apparatus necessary is a blood pressure machine. The significance of discomfort following compression of the limb with the sphygmomanometer cuff was recognized while performing routine oscillometric studies on patients with symptomatology referable to their lower limbs. Some of the patients with healthy appearing limbs who complained of pain on use of the sphygmomanometer cuff were subsequently proven to have phlebitis. On analysis this finding proved significant.

TECHNIQUE

In performing the test, the patient's threshold for pain must first be determined. In order to accomplish this, the sphygmomanometer cuff is placed on the arm and rapidly distended to two hundred and fifty millimeters of mercury. The average patient experiences no pain at this pressure. The test is then performed by similar compression of the lower limbs above and below the knee in succession. A blood pressure cuff or an oscillometer cuff serve equally well for this study. A level of one hundred and eighty to two hundred millimeters of mercury pressure has been found proper for the lower extremity. If pain is experienced as indicated by the patient withdrawing the limb, wincing, or crying out, the cuff is immediately deflated. This is considered a positive test. For the purpose of checking the patient's reliability, the test may be safely repeated within a minute or two. The same response should be elicited within twenty millimeters of mercury pressure. (mm/Hg)

Repetition of the sphygmomanometer cuff pain test may be done at frequent intervals in an attempt to further assess the patient's condition, to make the diagnosis, or in following the course of the disease, or the validity of the therapy. In patients with a reduced pain threshold, a pain response at levels below 180 mm/Hg must be given special interpretation relative to the pain-response level on the upper extremity.

DISCUSSION

Numerous signs and tests have been described in the diagnosis of the phlebitic process. They are all valuable in different degrees. Measurement for swelling, deep calf and deep thigh tenderness are important when present. The passive forceful dorsiflexion sign of Homans' and the passive forceful plantar flexion sign of Rosenthal are reliable. Harvey's sign and the lateral plantar squeeze used extensively by this author are indicative of plantar phlebitis. Moses' sign is usually a late one present more commonly in the postphlebitic state. Venography by direct cannulation or by the transosseous route is elaborate and time consuming but helpful in skilled hands. In the presence of a positive reaction to any one of these other tests, except those of the postphlebitic state, the cuff test is almost always positive. In most instances the cuff test is positive prior to the other tests, though as the disease process progresses, other signs appear in progression. With healing, the cuff test is the last sign to disappear.

The sphygmomanometer cuff pain test will be most valuable when it is done as part of the admission work-up to the hospital in all cases entering for major medical illnesses or major surgery. With the initial recording serving as a base line, repeat readings every two to three days after admission and in the postoperative period have greater significance. For example, if the initial testing showed no pain at two hundred millimeters of mercury on the lower limbs and five days after gastrectomy, the same test caused pain at one hundred fifty millimeters of mercury, this patient must be presumed to have phlebitis and should be treated accordingly.

In the presence of a superficial thrombophlebitis the cuff test should probably not be done. It will routinely elicit pain and might aggravate the disease. The diagnosis is obvious and performance of the test can add no information which would be of value therapeutically. Deep phlebitis in most instances is a bilateral disease and usually involves vessels in both the thigh and calf. This has been proven pathologically by the work of many investigators including Patterson and McLaughlin. Physical examination, however, commonly fails to detect positive signs in both lower limbs, one often being "silent." Analysis of hundreds of patients' records relative to the cuff test indicate that the vast majority have shown positive tests bilaterally. With the knowledge that a positive cuff test has been recorded, an examiner returning to the patient with greater care and time allowance will in most instances detect one other positive sign. This may be in the deep thigh vessels, the deep calf, the Achilles tendon region, the plantar vessels, Homans' sign, etc. The Homans' sign incidentally has been found to be positive in about 30 per cent of cases when the cuff test is initially recorded as positive.

False positive tests have been recorded commonly in patients with ischemia, especially those with intermittent claudication. Cases of direct trauma to a lower limb also record positive tests but the astute clinician can readily eliminate the false positives. For example, cases of intermittent claudication usually show positive testing at only one of the four sites on the two lower extremities, and this site in one of the calves. In phlebitis a *bona fide* case almost always shows positive cuff testing over thigh and calf and in a great majority both limbs are reactive.

The exact mechanism of the pain response in the sphygmomanometer cuff pain test is not known but it is believed to be similar physiologically to that active in the calf squeeze and in the Homans' maneuver.

RESULTS

The sphygmomanometer cuff pain test has now been performed by the author and his associates many thousand times. Information obtained has been found valuable in assessing cases and in initiating treatment. Progress of the therapy has been checked periodically. This has been possible because this is the only quantitative clinical test presently available.

In no instance in our series has a pulmonary embolus resulted from the use of this test. In only two instances, both in the same patient, the combined determinations of oscillometry and the sphygmomanometer cuff pain test have stirred up a smoldering phlebitis, this without serious complications to the patient. Because of this, however, when the diagnosis is obvious or after confirmation, the sphygmomanometer cuff pain test is not done repeatedly in seriously ill patients. Moreover, it should be done with proper discretion and mature judgment, always deflating the cuff promptly once pain is elicited.

Case reports indicate that the phlebitic process has been diagnosed in traumatic cases as long as three weeks prior to the presence of swelling, pain, or other positive signs.

The sphygmomanometer cuff pain test may prove valuable for mass screening in an attempt to pick up cryptic malignancy. Large-scale laboratory and x-ray screening projects for malignant disease may become more pointed by first subjecting large groups to the sphygmomanometer cuff pain test.

The days of incarceration of the mentally ill patient in a state hospital are over. Psychiatric divisions in general hospitals now afford advantages to patient and community hitherto undreamed of. Treatment on an ambulant basis is a step forward.

TREATING THE MENTALLY ILL IN GENERAL HOSPITALS

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Psychiatry itself is a vast human enterprise on the move. It is in tremendous intellectual and operational ferment. In every country, in thousands of hospitals, universities and clinics, laboratories and research centres, old worn out ideas are being torn down. New ones are being run up. Provisional reorganizations are being made. New types of procedure are undergoing test and trial. In an amazingly short period of time the outlines of the new science of human nature have begun to take form and we already see the great and promising fruits which they have begun to yield. It seems certain that within a relatively limited period of time all those psychiatric patients requiring hospitalized care will receive it in general hospitals rather than in the old state hospital systems.

PSYCHIATRIC DIVISION OF A GENERAL HOSPITAL

If we are to plan wisely for the future it is necessary for us to understand the reasons why this has come about.

Two major factors at once present themselves. The first is the expansion in our knowledge of diagnostics and of therapy. As it became possible adequately to differentiate between those cases likely to do well within a relatively brief period of time and those who would either not recover or would take a prolonged period of hospital stay, it was pos-

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SUMMARY

The psychiatric division of the general hospital has become one of the most important forces in our treatment of the hospitalized mentally sick. First established about the beginning of this century, it has shown a very rapid rise in importance, particularly since the end of World War II. Now more than half of all patients who are hospitalized for diagnosis and treatment of mental illness enter psychiatric divisions of general hospitals.

The requirements of a psychiatric division in a general hospital are outlined as pertains to number of beds, nursing, intern, and resident staff. All types of patients may be accepted. The staff should be large in proportion to the rest of the hospital. Duration of patient stay is short and further follow-up and rehabilitation is carried out through ambulant services. The day hospital and night hospital is a new development providing an economical means of caring for patients who can remain home part of the time.

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sible to set up a psychiatric division in a general hospital which would be at least something of a clearing house. In such a division care could be given to the relatively short term deliria, most head trauma states, some psychoneurotic conditions, while the long term psychotic states could be passed on to the state hospitals. And so it was in the first decade of this century. Within ten years, however, our therapeutic powers began to increase. In the years subsequent to the First World War there began the first of a series of remarkably vigourous steps which have gone on until now and with each new forward step in our capacity correctly to diagnose and more and more successfully to treat patients, the efficiency of the psychiatric division of the general hospital went up and hence more and more of these divisions were established.

The second major factor has been public demand. The public has now begun to anticipate the very best in health. It is not content to see its sons and daughters, husbands and wives passed on to a vast, remote stone wilderness up the river or down the river or across the river. It is determined that they should go to the same place as the family has always gone in its hours of need—to the general hospital. This is the symbol of modern medicine. This is the place where medical skills and care reach their most shining heights of excellence.

These twin factors have been primarily responsible and are continuing to be responsible for the vast growth of psychiatric divisions in general hospitals.

As our therapeutic capacities increase, step by step and year by year, the number of people we are forced to commit to state hospitals is reduced. As our ability to control impulsive violent behaviour becomes the more varied and the more effective, we are able to accept and treat patients whom we could not dream of taking care of a few years ago.

We may assume that the general hospital we are talking about is one having somewhere between 200 and 800 beds, that it is located in a typical urban or semiurban area. In the hospital will be first class inpatient and outpatient medical and surgical services. It will probably be a teaching centre for a neighbouring university or will be carrying on its own teaching programs. We must also assume, and this is important, that there is a favorable attitude on the part of the staff within the hospital to the setting up of psychiatry. If there is not, the probabilities of success in the operation of the new psychiatric unit will be impaired. This favorable attitude must be present in its governing body as well as in its medical staff and there must also be a strong community demand for service. Here is where the state and local mental health organizations can play a particularly useful part. It is also desirable, although not necessary, that there should be a number of psychiatrists already established in the area, both because they may be of assistance in doing part-time work in the unit and also because they will have already established working relationships with their other medical colleagues.

In picturing the psychiatric division then, one would see it as having 10 per cent of the total hospital beds. This 10 per cent will permit the psychiatric unit to do a number of things. First, it will permit it to accept emergency cases almost at once from the community. It will also permit the transfer of patients who require psychiatric care from the rest of the hospital to the psychiatric unit. This is one of the ways in which the psychiatric division can build good will for itself, not only among the medical, but the nursing staff of the general hospital, since patients showing emotional disturbances are usually very much better handled by a staff specially trained for it and located in a suitable psychiatric division. Ten per cent of the beds will also provide a sufficient number of beds for the training of staff, which is an essential part of the unit, and for the acquiring of experience.

ADMISSION POLICIES

It is most important that the hospitals should be prepared to accept all types of patients and that the only limitation on intake should be the unwillingness of the patient to enter the hospital. You will find under these circumstances that practically every kind of patient will come, the confused senile, the excited manic depressive, the impulsive schizophrenic, the suicidal patient, as well as all forms of psychoneurotic individuals who may require hospitalization. There will always be a few who will not. These will be mainly a few of the paranoids, a few of the addictive cases including some alcoholics. By and large a full cross section of psychiatric illness will agree to enter the hospital and the hospital must be prepared to deal with them. There is no reason why with our great range of therapeutic agents which are now available to us that we should not be able to do this. I know that there are some hospitals which still have some limitations on their admission rates and there may be local circumstances which require this but by and large the psychiatric division of a general hospital has now come of age. It can no longer be looked upon as the favored or precious member of the diagnostic and therapeutic team. It must be prepared to take its position not only as a major, but the major and probably soon to be the only area in which the psychiatrically sick person can hope to get the necessary assistance.

If we are to ensure complete flexibility of operation it would be wise to see to it that from the very first the division is built for the psychiatric patient. There is a disposition, especially in these days of financial stringency, to take over some old part of the hospital, do some reconstructive work and then present the psychiatric staff with what is very often euphemistically termed a psychiatric division. The basic thing for the architect to bear in mind is that the psychiatric patient does not have to be in bed. The second thing is that the area of treatment is not the operating room as it is with the surgeon, nor the bed as it is with the physician, but those places where human interactions take place and in particular the doctor's office. No matter what your preconceptions may be of the number of offices required in a psychiatric division *vis a vis* the number of beds, they are almost certainly too low. The number of offices required is a remarkably high proportion.

RELATIONSHIP TO GENERAL HOSPITAL

Into our picture of the psychiatric division of the general hospital must now be placed its actual location in relationship to the general hospital. There are two possibilities. The first is that it may be a separate unit in the hospital grounds or it may be an actual floor in the main hospital building. There are advantages in both. If it is an actual floor, the chief advantage is the great ease of communication between the various categories of staff in the hospital. The surgeons and physicians on consultation come more easily, the nurses and interns come back and forth and it is easy to get to a common dining room or a common lounge room and exchange ideas, which are often the breath of medical experience. The disadvantage is that it is rather more difficult to plan a psychiatric division which will have the full characteristics required for a psychiatric division if it is going to be within the main building. In this connection it is most important that a psychiatric division, if it is in the main building, should be located where it is easy for patients to get out of doors. You cannot expect someone to come into a psychiatric hospital, be up all day and actually stay indoors for five or six weeks. The advantages of a separate unit are easily stated. It is apt to have more autonomy, to be brought under the general rules of the hospital to a lesser extent and therefore to have more freedam to express its own particular needs. It is also much easier to plan access to the grounds, to tennis courts and any other outdoor activities. It has a grave disadvantage, however, that consultants find it very difficult to walk out of doors. It is a curious phenomenon that if two units are actually in the same building, even at a quarter of a mile distant, it is easier to go from one unit to another than if you have to go out of doors even for 50 feet.

The great desirability of the psychiatric unit being under the same direction as the rest of the hospital has already been stressed. The psychiatrist-in-chief should have precisely the same status, sit on the same governing boards as the physician-in-chief and the surgeon-in-chief and the nurse in charge of the psychiatric division should have the same status as the nurse in charge of the surgical and medical divisions. This then gives us something of a working picture of a standard psychiatric division.

CONCEPT OF DISEASE

We have four great groups of working ideas about health. The first is our concept of disease, the second, our concept of the cause of disease, the third, our idea of treatment and the fourth, our idea of cure. Our earlier ideas about disease carried with them an implication that disease was an affliction, that is was something which attacked the individual. Nowadays we think quite differently about disease. We see ill health as being a reaction of the total person to a situation which produces ill health.

In the olden days the cause was single. This was fortified by our great success during the 19th century in the identification of the bacterial causes of illness. With regard to treatment the same was true. Treatment was seen as destroying the cause. Finally, when we turn to the fourth great idea, which is that of cure, we used to see cure as a restoration of the person's original condition. This again was a derivative of our success in the physical sciences where we were dealing with substances which by and large remained the same, or could be brought back to the same state. It is far from applicable to a situation where we are dealing with something which is constantly changing and altering and never returns to its original state as is the case in the living organism.

Nowadays none of these working premises of the 19th century concerning health are accepted as valid. It is extremely important that we should look at our present ideas concerning health, disease, and treatment since they more than anything else will determine how we build and operate our great psychiatric facilities.

It is essential that the psychiatric division of the general hospital should be organized to participate in the mental health activities of the community. The relationship between the community and the psychiatric division is considerably closer than it is between the community and any other department of medicine in the hospital. Because of our recognition of the extent to which social, family and community factors affect the progress of mental illness it is essential that what we know about mental illness be completely fed back into the community, into the school system, into the penal organizations, into the homes, and that this feed-back system should work both ways so that information concerning community needs and concerning community conditions, social and domestic conditions, should pass into the psychiatric division where it can be assessed by the members of the department and further plans can be laid. In building your psychiatric division it is essential that not merely the physical doors but the more important psychological doors between the hospital and the community should be kept continually open.

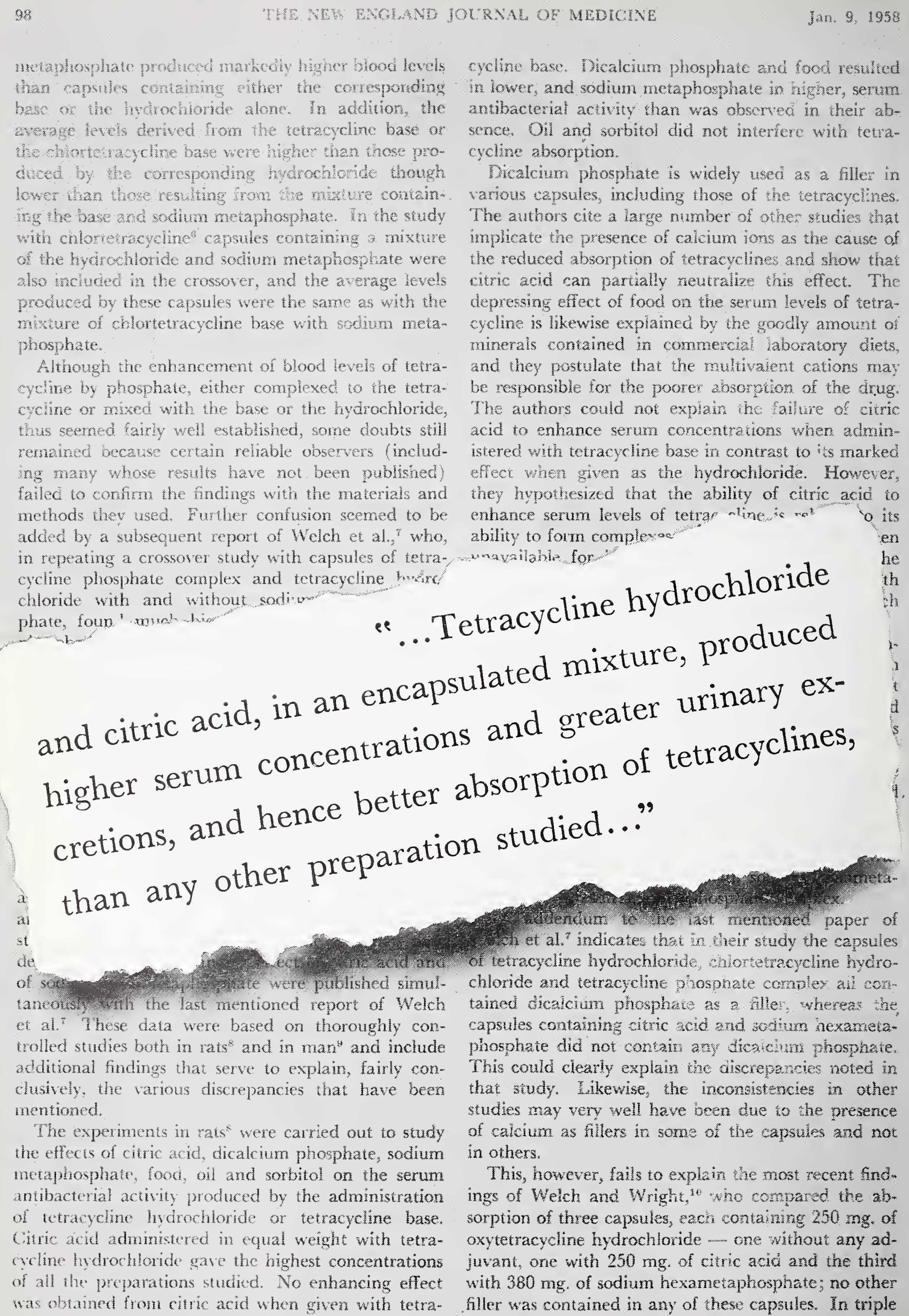
There is always the danger in a highly specialized field that barriers will be set up between those people working in the inside and the rest of the community outside the field. In the case of the psychiatric division this can be a most serious impediment to the full range of experiences and ideas which it is essential should be fed back and forth between the two areas. Indeed, some of the more advanced thinking in this field is beginning to suggest that the psychiatric division, having established extensive ambulant services such as day hospitals, night centers, follow-up programs and outpatient departments, should go a step further and establish actual diagnostic and treatment centers in those areas where experience shows most intensive breakdown occurs, such as those areas in large urban centres where domestic building is giving way to industrialized construction and where experience has shown breakdown is particularly apt to take place.

CAUSE OF DISEASE

We are now much more apt to see the human being as capable of a variety of responses, for instance, it can react by anxiety, by the well known guilt pattern, it has such responses as negativism, as well as a variety of somatic break downs—the appearance of ulcers, of asthma, of some kinds of skin disease. The number of ways in which the individual can react is limited by his physiological and structural and psychological make up. On the other hand the number of external situations to which he may be called upon to react is quite infinite.

Hence, we have come to appreciate the fact that the causation of a given condition may be not only multiple but quite various. For instance, asthmatic attacks may be caused by pollens, they may be caused by cold, they may be caused by the smell of formaldehyde and they may also be caused, curiously enough, by the person with whom the individual frequently associates the smell of formaldehyde or they may even be caused by the memory of formaldehyde.

This conception of illness as having multiple cause is one which the psychiatric division of a general hospital is particularly well adapted to deal with. It has at its command all the resources of medical science. It can call in the representatives from the biochemical laboratories, from the radiological department, from internal medicine, from endocrinology and it should naturally be set up itself to provide assistance from a psychological laboratory to carry out the multiple investigations which are necessary in view of this changing conception of the cause of illness.



98 THE NEW ENGLAND JOURNAL OF MEDICINE Jan. 9, 1958

> "...Tetracycline hydrochloride and citric acid, in an encapsulated mixture, produced higher serum concentrations and greater urinary excretions, and hence better absorption of tetracyclines, than any other preparation studied..."

metaphosphate produced markedly higher blood levels than capsules containing either the corresponding base or the hydrochloride alone. In addition, the average levels derived from the tetracycline base or the chlortetracycline base were higher than those produced by the corresponding hydrochloride though lower than those resulting from the mixture containing the base and sodium metaphosphate. In the study with chlortetracycline[6] capsules containing a mixture of the hydrochloride and sodium metaphosphate were also included in the crossover, and the average levels produced by these capsules were the same as with the mixture of chlortetracycline base with sodium metaphosphate.

Although the enhancement of blood levels of tetracycline by phosphate, either complexed to the tetracycline or mixed with the base or the hydrochloride, thus seemed fairly well established, some doubts still remained because certain reliable observers (including many whose results have not been published) failed to confirm the findings with the materials and methods they used. Further confusion seemed to be added by a subsequent report of Welch et al.,[7] who, in repeating a crossover study with capsules of tetracycline phosphate complex and tetracycline hydro chloride with and without sodi phate, foun

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of so were published simultaneously with the last mentioned report of Welch et al.[7] These data were based on thoroughly controlled studies both in rats[8] and in man[9] and include additional findings that serve to explain, fairly conclusively, the various discrepancies that have been mentioned.

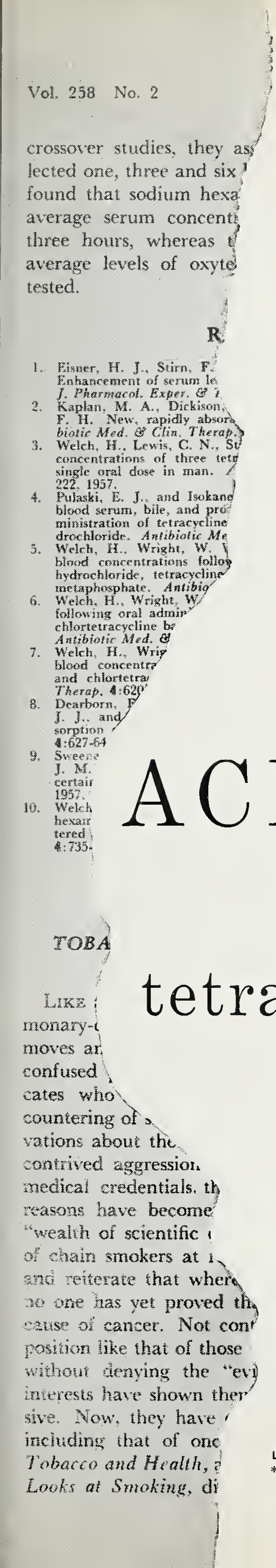
The experiments in rats[8] were carried out to study the effects of citric acid, dicalcium phosphate, sodium metaphosphate, food, oil and sorbitol on the serum antibacterial activity produced by the administration of tetracycline hydrochloride or tetracycline base. Citric acid administered in equal weight with tetracycline hydrochloride gave the highest concentrations of all the preparations studied. No enhancing effect was obtained from citric acid when given with tetracycline base. Dicalcium phosphate and food resulted in lower, and sodium metaphosphate in higher, serum antibacterial activity than was observed in their absence. Oil and sorbitol did not interfere with tetracycline absorption.

Dicalcium phosphate is widely used as a filler in various capsules, including those of the tetracyclines. The authors cite a large number of other studies that implicate the presence of calcium ions as the cause of the reduced absorption of tetracyclines and show that citric acid can partially neutralize this effect. The depressing effect of food on the serum levels of tetracycline is likewise explained by the goodly amount of minerals contained in commercial laboratory diets, and they postulate that the multivalent cations may be responsible for the poorer absorption of the drug. The authors could not explain the failure of citric acid to enhance serum concentrations when administered with tetracycline base in contrast to its marked effect when given as the hydrochloride. However, they hypothesized that the ability of citric acid to enhance serum levels of tetrac o its ability to form complex en unavailable for he th ch

hexameta- phosphate complex.

addendum to the last mentioned paper of ch et al.[7] indicates that in their study the capsules of tetracycline hydrochloride, chlortetracycline hydrochloride and tetracycline phosphate complex all contained dicalcium phosphate as a filler, whereas the capsules containing citric acid and sodium hexametaphosphate did not contain any dicalcium phosphate. This could clearly explain the discrepancies noted in that study. Likewise, the inconsistencies in other studies may very well have been due to the presence of calcium as fillers in some of the capsules and not in others.

This, however, fails to explain the most recent findings of Welch and Wright,[10] who compared the absorption of three capsules, each containing 250 mg. of oxytetracycline hydrochloride — one without any adjuvant, one with 250 mg. of citric acid and the third with 380 mg. of sodium hexametaphosphate; no other filler was contained in any of these capsules. In triple



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The New England Journal of Medicine.
258:97-99, (January 9) 1958

ACHROMYCIN* V

TETRACYCLINE HCl BUFFERED WITH CITRIC ACID

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tetracycline and citric acid

Lederle

LEDERLE LABORATORIES DIVISION, AMERICAN CYANAMID COMPANY, PEARL RIVER, NEW YORK
*Reg. U. S. Pat. Off.

We can go further and say that we are beginning to perceive the singular importance of the social setting as a potential factor in illness and recovery. Some of the pioneer studies on the effects of the social environment within the hospital upon the course of illness have been carried out in the psychiatric divisions of general hospitals. It has been possible to show, for instance, that where disagreements exist between categories of staff concerning the patient, the patient is apt to become more and more disturbed himself and to become anxious, uncertain and antagonistic. Similarly it has been long well known that one or two disturbing patients can create an atmosphere in a section of the hospital which will soon spread to other patients and will create a considerable problem.

TREATMENT OF DISEASE

These changing conceptions of illness and of cause which I mentioned earlier find their expressions particularly in our changing ideas of treatment. Treatment is now rarely looked upon as specific. An older idea considered that treatment should be directed to finding the cause of the condition and the eradication of that cause. The conception of treatment we now have is more direct and simple and says that the primary purpose is to return the individual to his best possible functional level by all possible means.

It would be confusing to discuss the range of treatments which a psychiatric division of a general hospital should provide. Let us say simply that it is in these divisions that the best possible diagnostic services and the most advanced forms of treatment should be found. The discussion of treatment in itself would take us into an area of vast complexity. Fortunately there is another aspect of treatment, namely, the organization and functioning of the treatment setting itself, which it is singularly rewarding to consider at this stage in the development of the psychiatric division.

We are now beginning to see the settings in which treatment is carried out as particularly important. We have begun to carry out experiments in inventing new kinds of settings. One of the settings, by no means a new one, is one which we use and then abandon in response to great shifts in social attitude. I have reference here to the opening of hospitals.

What are the great advantages of having your psychiatric division of a general hospital open? The first advantage is that where you have no locked doors you cannot put away your problem, you have to find an immediate solution to the difficulty which is facing the patient and facing the staff. If you can lock your problem up, the staff can go home and forget about it, and come back next day only to find the problem still unsolved and in a worse tangle than before. Where you open the hospital, the staff have to solve these problems and therefore the staff have to be continually concerned with what is happening to the patient, how the patient is feeling and how the patient's difficulties can be met. Another great advantage of having an open hospital is that you preserve the sense of worth in the mind of the patient; the sense of his integrity and his dignity as a human being. When you lock him up you take those away. As you will have noticed in the United Kingdom a report has now been put out advocating the opening of psychiatric hospitals and I am glad to say that within the self same year the Canadian Psychiatric Association has announced as a desirable objective the opening of psychiatric divisions and psychiatric hospitals. The balances of public opinion are swinging. Where a new psychiatric division is being established those who insist on it being a locked facility have a grave responsibility. They must now explain themselves and defend their position. It is no longer the responsibility of those who wish to open it to be on the defensive. They are in the position now of being those who are following an enlightened and growingly established practice.

PROGRAM OF SELF STUDY

It is essential that the staff, the nursing staff, the attendant and the medical staff study the psychodynamics of the hospital situation and this means the psychodynamic situation in which they themselves are participants. These studies are quite easily set up. The senior medical staff undertakes to meet with the nursing heads and discuss psychodynamic problems and in particular the psychodynamic organization of the wards. The head nurses in turn meet with the junior nurses and the attendant and nursing aid groups.

The management of deviant and extreme behaviour is another area of study and work. We have found it an outstandingly useful principle that deviant behavior should be regarded as emergency behavior. The idea of emergency has not been sufficiently well developed among psychiatrists, largely one must imagine because the vast, rambling and pitifully understaffed state hospitals have never, in the past, been able to bring together sufficiently rapid concentrations of staff, of skills and of instrumentation to deal with the emergencies. If you contrast what is possible in a state hospital with what is possible in a surgical or medical division of a general hospital you will see more clearly what I mean. In the surgical hospital when it is reported that a patient has had a sudden perforation and is bleeding internally, within a matter of minutes the patient can be in the operating room. The operating room is ready, skilled staff are constantly on hand to go into operation at a moment's notice. Or in a medical division it is reported that a patient has had a sudden coronary attack and literally minutes if not seconds are going to make a difference between life and death. Those minutes are immediately employed by a team of anaethetists who can oxygenate the patient, internal medical men who can check on and support his heart and of nurses who are trained to deal with precisely this kind of emergency.

It is in the same sense that we must look upon impulsive behaviour, the appearance of acute hallucinosis, of suicidal trends, or aggressive and antagonistic behaviour in our patients. In the old state hospitals these conditions had to go on hour after hour and even day after day, the patient being put into a room by himself where he was stripped of possible means of damaging himself. In the newer psychiatric divisions of a general hospital however, we have the staff, we have a high concentration of skilled personnel, we have the instrumentation, we have all the therapeutic devices which are necessary for immediate action and where we can employ it in this way, where we have sufficient vigour and initiative and determination we can bring deviant behaviour to an end immediately and thus protect the other patients against a spread of disturbance from this acute patient.

IMPORTANCE OF SETTING FOR THERAPY

Of primary importance is the very simple observation that the psychiatric patient does not need to go to bed. If one gives some thought to this matter and to the question what is a hospital and what does it consist in, one sees that the hospital primarily is an aggregation of special facilities and special skills. It is efficient to bring the patient, the diagnostic and therapeutic apparatus and the skilled personnel together in one place. If the patient has to be in bed, we make such provision for him. The personnel do not have to be in bed so we do not build beds for them. Looking at this again realistically one can see that the hospital therefore has a hotel function for these patients who cannot travel, who must be in bed. If the psychiatric patient does not have to be in bed, then clearly we should be able to consider the possibility of his being at home or at all events outside the hospital to a far greater extent than other types of patients. It is thoroughly uneconomic to have two beds for any one person, one in the community and one in the hospital. Nonetheless, we are still following an old principle. We have not yet decided for what kinds of psychiatric patients we should build beds but we can well anticipate that the coming years will see some quick advances made in the treatment of psychiatric patients on an ambulant basis. In other words, we are beginning to realize that we don't have to have the psychiatric patient in hospital all the time and certainly not as long as he is now.

Some of us have been giving expression to this belief for the last decade. We have developed the concept of the day hospital and of the night hospital. These are centers to which the patient comes respectively only during the daylight hours, returning home to sleep at night or in the case of the night hospital, working all day and coming in in the evening and sleeping at night in the hospital. We have also developed at the Allan Memorial Institute a great series of ambulant services so that we now carry far more patients on an ambulant basis than we do inside the hospital.

Despite this an exceptional endowment of dead ideas is still being carried over from the past. There are some signs of vigorous growth.

OCCUPATIONAL THERAPY

Psychiatric occupational therapy found its inception in the state hospital. There it had great values in so far that it provided an alternative way of life, and an area of self expression for a population which at that time at least was largely stationary and often it had to provide for the permanent patient his only opportunity to work. When you place occupational therapy in the psychiatric division of a general hospital, however, you place it in an entirely different setting. A setting in which powerful forces are at once set to work to tear apart its construction and to remodel it in more modern form. Here in the psychiatric division the patient stays only for a few weeks. If the centre is vigorously in operation the amount of time consumed in diagnosis and in treatment is so great that the time left over for occupational therapy will be quite limited. Therefore in the last year we have begun to rethink our whole conception of occupational therapy. If it is not to be changed we foresee the possibility that occupational therapy might follow hydrotherapy and the continuous tubs which, as you know, have almost completely disappeared from psychiatric utilization.

We are still trying to elaborate a new role for occupational therapy. Thus far the objectives which we have defined are in the first instance diagnostic. We find very few places in the Institute where a better study can be made of the patient in action by suitably trained personnel than in the occupational therapy department. Here too can be studied the relations of the patient to objects and this in turn throws an extremely important light upon his dynamics. A second area of utility is that in his expressive work much diagnostic material can be brought out and therapy can be directly promoted. Along with this one must point out the curious fact that although we have had occupational therapy for so long and although we are well acquainted with the fact that to have somebody occupied is in general to exercise a stabilizing effect upon him, we know very little about the dynamics of occupation or, should we say, preoccupation, with a task.

Finally, we see a very important role and one linked to massive social changes in our culture awaiting occupational therapy. This role is the discovery and activation of latent capacities. We are increasingly convinced that all of us have latent capacities for, let us say, artistic appreciation, mathematical work, leadership, public speaking, and the like. These capacities, we feel, can be detected in the occupational division. The reasons for their latency can be explored and, if they can be overcome, then the new talent and ability can be brought into early activity in the occupational therapy department. The patient on discharge will be recommended to some centre in the city where he can continue his interest if he wishes. There are in all cities debating societies, art classes, universities with extension courses, in a word, anything which we could initiate in the Institute could be followed up over a period of years on the outside if the patient wished. This we feel is of great importance in this period of increased leisure time. As you know, the work week is continually shortening and it is certain that we are going to have to develop aspects and facets of our personalities which we had not hitherto known we possessed if we are going to be able to live the full life which lies awaiting us.

CONCEPTS OF CURE

In an older period, cure was seen as the eradication of disease, the restoration of the individual to his former status. Nowadays we do not see cure in that way at all. We know that the old concept was quite unrealistic. The human organism is continually emerging, evolving and changing. There is absolutely no possibility of the chronic psychoneurotic or indeed anybody else returning to the condition he was in ten years ago. Ten years of experience have pushed him, changed him and moulded him, whether he is neurotic or apparently normal, into a form which cannot possibly be reversed anymore than you can reverse a ten year growth in a tree. Hence our conception of cure is much more akin to the newer conceptions of rehabilitation. What we seek to do is to help the individual become free of damaging stress, help him to become adjusted to his environment, an environment in which he is happy and in which he will continue to grow.

We recognize also at this stage in our struggles with psychiatric problems we are pretty much as the bone surgeons used to be with regard to rickets. A generation ago one encountered ghastly distortions of the skeleton due to severe vitamin D deficiency and the bone surgeon could only do a certain amount. Nowadays these distortions literally hardly occur and when they do, are quite mild. We are the legatees in psychiatry of a period in which tremendous distortions of the personality were permitted to go forward unchecked. Indeed, we ourselves with our policies of multiple incarcerations in state hospitals have contributed no little to the enormous disturbances and distortions which one finds in some of the more vulnerable patients and particularly the schizophrenic individual. In our plans, therefore, to adjust ourselves to the new thinking concerning cure we have developed a considerable number of rehabilitation schemes. And indeed an early concept which we had concerning the Institute, which is a psychiatric division of a general hospital, was that its bed capacity should be regarded simply as the central core from which would be built a series of ambulant services. In this central core could be found the high concentration of staff, the great range of skills, the heavy accumulation of necessary instrumentation. But the number of patients in the Institute itself would be, we foresaw, far smaller than the numbers who were supported from the Institute and came to the Institute for treatment but who did not enter the Institute. We have rehabilitation services, for instance, for those people who have recurrent manic depressive attacks. Anybody who has had two manic depressive attacks we put on a five year follow-up service. They come to us once a week during the first three years and less frequently during the fourth and fifth years and eventually we have been successful, not only in preventing the recurrent attacks but also in limiting the tendency towards further attack once the five years are over.

For the schizophrenic patients we have set up a follow-up service of two years. Our conceptions of schizophrenia are that it is due to a process which can be stopped by organic therapies and we feel that the kind of recovery which goes on in schizophrenia is a special kind which can be facilitated and protected by a combination of physical therapies and psychotherapy carried on on an ambulant basis. The period during which the patient remains in contact with us is two years but during that time the patient is able to carry on with his work, very often he or she marries and there are children and in general things go on satisfactorily. Should there be relapses, we have an arrangement with a voluntary order of nurses whereby weekly visits to the patients are carried out. The nurses are instructed as to the early signs of relapse and the patient is brought under treatment very often within 24 or 48 hours after relapse begins to show itself. These very early stage relapses can be treated on an ambulant basis and we have practically never readmitted a schizophrenic patient in relapse who is also at the same time on one of our active rehabilitation programmes.

We are starting an ambulant follow-up service for our aging patients. Here we see important problems in psychosociological adjustment awaiting us—extremely interesting problems in psychosociological adjustment awaiting us—extremely interesting problems in the use of hormones and vitamins and other agents. The beginnings are promising and we are hopeful that within a year or two we shall have worked out a really valuable routine of followup care for the aged.

This social organization, perhaps more appropriately designated social invention, namely, the psychiatric division of the general hospital, has still within it vast potentialities for further elaboration and development. It is clearly destined to be in the foreseeable future a major weapon in our tremendous battle for the maintenance and improvement and advancement of our mental health.

ANNUAL COUNTY ASSOCIATION MEETINGS

New Haven, Thursday, March 27

WAVERLY INN, CHESHIRE

Business meeting: 4:30 P.M. Dinner: 7:00 P.M.

Hartford, Tuesday, April 1

HOTEL BOND, HARTFORD

Business meeting: 4:30 P.M. Dinner: 7:00 P.M.

Speakers: Dr. Albert W. Snoke, Director of the Grace-New Haven Community Hospital, Dr. Arnold H. Janzen, of Hartford and Mr. Andre Blumenthal, Chairman, State Board of Mental Health.

Subject: "THE HOSPITAL BOARD OF DIRECTORS' VIEWS ON PHYSICIAN PARTICIPATION IN THE HOSPITAL."

New London, Thursday, April 3

MOHICAN HOTEL, NEW LONDON

Business meeting: 5:00 P.M. Dinner: 7:00 P.M.

Speaker and subject to be announced

Fairfield, Tuesday, April 8

STRATFIELD HOTEL, BRIDGEPORT

Middlesex, Thursday, April 10

COMMODORE MACDONOUGH INN, MIDDLETOWN

Business meeting: 4:30 P.M. Dinner: 6:30 P.M.

Speaker: Dr. Carl Stearns, Professor of Astronomy, Wesleyan University

Subject: "An ASTRONOMER LOOKS AT THE SATELLITES"

Tolland, Tuesday, April 15

OLD HOMESTEAD INN, SOMERS

Dinner: 6:30 P.M. Speaker and subject to be announced

Windham, Thursday, April 17

Litchfield, Tuesday, April 22

CONNECTICUT STATE MEDICAL JOURNAL

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EDITORIALS

The Annual Meeting

Connecticut suffers from a difficulty regarding its annual meeting which is paradoxical. The sessions can conveniently be attended by practitioners anywhere in the State who can leave their homes for the meeting place in the morning and still be home for dinner in the evening. The majority can, as a matter of fact, attend either morning or afternoon sessions or the annual dinner without seriously inconveniencing their practice or other social or community obligations. Virtually no one stays overnight at the meeting place and there is no common meeting ground except the halls or the cafeteria of the high school in which we happen to be gathering.

The result is that for the most part little interest is manifested in the actions or deliberations of the House of Delegates by nondelegates until they are published some time later in the *Journal*. There is no natural and immediate forum for discussion such as would be provided if the attendants were living and eating together in an atmosphere removed from the urgent demands of their practices. The conduct of the affairs of the House tends to assume a remote character, therefore, as far as many of the members of our State Society are concerned. An attempt has been made in the past to remedy this defect by dividing the usual two sessions of the House between the first two days of the meeting rather than having them all on the first day before the scientific sessions begin. This proved to be a little impractical, was unpopular with the delegates and did not succeed in attracting very much additional interest from other members of the Society.

This situation seems particularly unfortunate at the present time since the Society has never had greater need of the interest of all of its members in the conduct of its business affairs. Although the open threat to the private practice of medicine is much less than in the days of the Wagner-Murray-Dingell bill, the hidden pressures to which we are now being subjected are no less serious. Because they are only incompletely understood by most of us, they are that much more dangerous.

These pressures are being directed through the field of voluntary nonprofit and commercial hospital and medical insurance plans by both management and labor. The undeniably great achievements of the nonprofit plans sponsored by our medical societies and the public in the various states have created a feeling of complacency which is not justified by the rapid pace of events in this field. Organized labor as represented by the big industry-wide unions is working actively for insurance coverage which will begin with the first dollar of medical expenses and run through so-called major medical expense. Management recognizes the legitimacy of these demands for "marginal benefits" and is willing to go more than half way in footing the bill for their extension.

Since it is management for the most part who designates the carrier, the commercial companies have developed attractive "package plans" to meet these demands and are selling them at prices which are extremely competitive with the nonprofit plans. The fact that these packages omit to protect the interests of the worker who is laid off or retired, or who is in a small industry with a poor experience rating attracts the interest of government planners who are exerting their own forms of pressure on the public.

It, therefore, behooves us all to express an active interest, not only in the scientific program and exhibits, which are again, as usual, very attractively planned, but also in the House of Delegates meeting. The House meetings are open to all members of the Society, except in the rare case where an executive session is involved. Your attendance and your interest will be appreciated and well rewarded.

Democracy Without Courtesy

College graduates and in particular those who have been privileged to secure a higher education providing admission to one of the professions are usually considered men and women possessing the finer social attributes. Of these, courtesy is an important member. Regardless of whether or not Connecticut physicians approve of a certain proposed contract written by Connecticut Medical Service, an attendant at one or all of the three recently held special County Association meetings (and there were those present who were not physicians) must have been impressed by a certain lack of courtesy shown fellow physicians. After the most sedate of these three meetings many comments were heard such as "I was amazed at the manner in which one of our own State Society past presidents was treated."

Granted there may have been poor public relations within the State Society when C.M.S. was bargaining for its new contract, the rank and file of the medical profession too soon forgets the time and unselfish effort expended by a few devoted members in endeavoring to keep the control of the nationwide development of prepaid medical care plans within the profession itself. The doctor of medicine who formerly gave hours of his time for little or no remuneration in serving the low income group and now receives prompt payment for these services must recognize that this circumstance has not just happened.

Courtesy should be an earmark of our profession. Once we lose this precious attribute we become just another group of rabble rousers and discontents. The words of James Thomas Fields of a century ago are still true:

"How sweet and gracious, even in common speech,
Is that fine sense which men call Courtesy."

Pulmonary Embolism

The problem of phlebothrombosis and thrombophlebitis has been an important one over the years, not only from the standpoint of vascular deformities consequent upon the recanalized and therefore valveless veins, but also from the standpoint of the often fatal sequel of pulmonary embolism.

Although some divergent opinion has been expressed on the efficiency of the temporary prophylactic therapy in the prevention of pulmonary embolism, certainly majority opinion favors its use and compliments its results.

This issue of the *Journal* carries an article on the use of the sphygmomanometer as a diagnostic tool in the detection of phlebothrombosis and thrombophlebitis, and its author extols its sensitivity and accuracy.

This test has been used and described before, but this article represents the results of a considerable and apparently happy experience therewith, and raises a point that is worth belaboring, namely, that the test should be much more commonly employed.

Should widespread clinical experience confirm the opinion of the current author, medicine would acquire a simple diagnostic tool ancillary to the common maneuvers of dorsiflexion of the foot, measurement of leg size and manual palpation which might well bear early witness to the presence of a free-lying thrombus, and perhaps prevent its often tragic consequences.

"G.B."

From time to time this Journal takes the opportunity of telling our younger readers why our only signed editorials bear the initials G. B. To most of our readers there is no mystery here because for nearly a half century the name of George Blumer has been synonymous with Connecticut Medicine. As President of our Society, as Dean of the Yale School of Medicine and as Professor of Medicine at Yale he is known by hosts of Connecticut doctors as teacher and friend. His wise words are always welcome in our pages whether they pertain to a strictly clinical subject or to the broader and more philosophical aspects of our Art. In either case his mastery is always evident with humor often creeping in to add force and deepened meaning. How fortunate we are to have such living evidence of leadership in medicine in the years of a so-called retirement! Never was the word so inappropriate as applied to George Blumer.

G. B. we salute you, and whenever we see your famous initials on the license plate of some foreign sports car they mean just one thing to us and it is not Great Britain.

The CMS Argument

Reprinted from *New Haven Register*

It is inconceivable that, in a time of mounting medical costs and ever-expanding medical boons, so widely used a health plan as the Connecticut Medical Service should be disbanded. Yet the protests of several of Connecticut's county medical societies make such a development at least a possibility. The issue is one to which Connecticut's medical men, and all responsible public officials, should bring a determination for compromise and understanding.

The New Haven County, Fairfield County and Hartford County Medical Associations have moved almost simultaneously to reject certain aspects of the new Connecticut Medical Service contract. They oppose the extension of CMS benefits on an ordained fee basis to families with an income of $7,500. Such benefits now stop at the $5,000 income level, and above that the doctor sets his own fee for medical or surgical services. There are other points of friction also between the physicians and the CMS administrators.

The arguments of the medical societies have not been explained in detail to the press. In fact, debate on the matters at issue seems to have been pretty well shut off at the county meetings of the medical groups. This makes it difficult to judge the problem or to comment upon solutions. In a period of inflated prices and wages, though, $7,500 is far from the making of a well-to-do family. At the same time it may well provide enough income flexibility to maintain the doctor's traditional and obvious right to set his own fees.

The other questions that have been raised by the doctors seem to be almost entirely matters of internal relationship with the CMS—and such questions should almost certainly be amenable to responsible and reasonable compromise.

The vital thing, at this point, is that the importance of the CMS plan to many thousands of Connecticut families should not be ignored. All but the smallest of medical costs can have a "catastrophic" effect upon family budgets today—and the CMS plan, with its big-brother Blue Cross program, is the chief bulwark of most Connecticut wage earners against the financial burdens of bad health.

The argument between the CMS and the doctors is a private one only so long as it is conducted in responsible private terms and doses not infringe upon the public welfare—as any disbanding of the Connecticut Medical Service might well do.

Medical Education Week April 20-26

Medical Education Week will be observed throughout the nation April 20-26. All means of communication will be employed to inform people about the progress and problems of the 82 medical schools which now train more than 7,000 physicians annually.

Special television programs are being planned for the national networks and radio and newspapers will carry numerous accounts concerning the contributions of medicine to American life.

In Connecticut plans are being developed by medical associations and allied organizations to join in the national observance. The general objectives will be to develop public understanding of the progress, aims and problems of medical education with the hope of stimulating more adequate financial support by the public. Attention also will be called to the contribution of medical schools in the education and training of large numbers of students in areas allied to medicine.

PROGRESS IN CLINICAL MEDICINE

THE USE OF RADIOACTIVE ISOTOPES IN OPHTHALMOLOGY

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SUMMARY

Artificial radioactive isotopes prove to be a very useful tool in ophthalmology. A brief review of some of the radioisotopes which are commonly used in ophthalmology in respect to diagnosis and treatment of ocular diseases and investigation of ocular physiology is presented. In diagnosis, the radioactive phosphorus (P_{32}) uptake test has gained increasing popularity for detection of intraocular tumors. In therapy, a variety of beta emitting radioisotopes has been developed and in use in the treatment of many superficial benign eye conditions, such as corneal vascularization, corneal ulcer, etc. The gamma emitting radioisotopes, such as radioactive gold grain, tantalum wire and telecobalt unit are used for treatment of deep seated ocular lesions. In research, the radioisotopic tracer technique has provided invaluable informations on ocular physiology. While their usefulness and potentiality are clearly pointed out, the complications which may entail their injudicious use are emphasized.

RECENT advances in nuclear physics and the development of more appropriate clinical technics and instrumentations have resulted in considerable progress in the radiological diagnosis and treatment of ocular diseases. Since the end of the World War II, with the availability of artificial radioisotopes for general medical uses, a number of beta and gamma emitting radioisotopes are also rapidly being added to the existing armamentarium, radium and roentgen-rays, in ophthalmology.

Before entering into actual discussion of uses of radioactive isotopes, it is appropriate at this point to discuss briefly some of the physical characteristics of radioactivity.[3] In 1896, Becquerel originally noticed that a uranium salt which was wrapped in paper emitted penetrating radiation which affected photographic plate. This property of emitting radiation spontaneously is an atomic property and is called natural radioactivity. All of the naturally occurring atomic nuclei that contain more than 239 particles prove to be unstable and so eject particles spontaneously to form new nuclei. This disintegration process will continue until a stable nucleus, lead, is formed. In the disintegration process, three "particles" are ejected, called alpha, beta, particles and gamma rays.

The artificial radioactivity was first discovered by Frederick Joliot and Irene Joliot-Curie in 1934. They bombarded boron with alpha particles and found a new kind of radioactivity consisting of neutrons, electrons, and positive particles. They called it artificial radioactivity and they first produced artificial radioactive nitrogen. At present, many hundreds of artificial radioactive isotopes are prepared by bombarding various stable elements in atom "smashers" or nuclear reactors.

In the process of radioactive disintegration, most radioisotopes emit either beta or gamma rays, or both; only a few isotopes emit alpha "rays". For example, radio-phosphorus (P_{32}) emits only beta "rays" and is called a pure beta emitter, while radio-iodine (I_{131}) is a beta and gamma emitter, and radio-sulfur (S_{35}) is a pure alpha emitter. The alpha "rays" possess the least penetrating power among the three. It can be stopped by a sheet of paper. The beta "rays" are more penetrating than the alpha, while the gamma ray is the most penetrating one which can only be stopped with various thicknesses of heavy metals.

The present presentation is intended to give a brief review of some of the radioisotopes which are widely used in ophthalmology in respect to diagnosis and treatment of ocular diseases and investigation of ocular physiological processes. Their usefulness and limitation are pointed out and the complications which may entail their injudicious use are emphasized.

DIAGNOSTIC APPLICATIONS

In the past several years the radioactive phosphorus (P_{32}) uptake test has gained increasing popularity[2, 8] as a useful adjunct in clinical diagnosis of intraocular malignant diseases. Radioactive phosphorus solution given intravenously is taken up in higher concentration by actively growing tumor tissue than by benign tissue. This fact was originally demonstrated clinically when P_{32} was used as a diagnostic aid to the detection of breast tumor by Low-Beer[5] in 1946. It was first applied to ophthalmology for the detection of intraocular tumor by Thomas[9] and associates in 1952.

One of the most difficult problems in ophthalmology is the differential diagnosis between benign and malignant intraocular lesions. Sometimes unnecessary enucleation is performed for intraocular benign lesion which clinically simulates a melanoma. At times the removal of intraocular melanomas is delayed because of an error in diagnosis. Unfortunately, many of the eye lesions cannot be biopsied without irreversible damage to the function of the eye. For this reason, the possibility of arriving at a more accurately differential diagnosis of malignant intraocular lesion by the use of radioisotope test should always be entertained with enthusiasm.

The technique of P_{32} uptake test itself is simple. In general the patient is given a tracer dose of P_{32} solution in the range of 500 microcuries intravenously for adults, and 100-200 microcuries for children at least 24 hours prior to the measurement with a small probe-type Geiger counter or a Scintillation counter. The measurement is made over the point of comparable position on the opposite eye or in a number of reference points on the same eye. The criteria which we use to indicate the presence of a malignant lesion are similar to that of Terner[8] and associates. The test is considered positive when in 24 hours there is an uptake over 30 per cent greater than the control. Sometimes an inflammatory lesion may show an increased uptake over 50 per cent greater than normal and may cause an erroneous interpretation.

Since P_{32} is a pure beta emitter whose maximal range of penetration is only 7 to 8 mm. in tissue, the usefulness of the test at present is limited to detection of malignant melanoma situated in the anterior segment and equatorial region of the eyeball. In general, it is felt that this test is a useful adjunct in differential diagnosis of malignant melanoma from serous detachment of the retina, vitreous hemorrhage and benign iris tumor. There was no false negative test in four cases of melanoma situated in the anterior segment done in this laboratory. It is hoped that with the development of better instrumentation, the present difficulty in assessment of the posterior segmental lesions may be overcome.

THERAPEUTIC USES

A variety of beta and gamma rays emitting radioisotopes have been developed and in use in the treatment of many superficial benign eye conditions. These applicators include radium D & C, ruthenium-106, phosphorus-32 and strontium-90 applicators. The advantage of using beta radiation is that it does not penetrate deep enough to cause damage to the underlying sensitive structures such as lens. Owing to its long half-life of 20 years and its energetic beta emission which has an average penetration of 3 mm. in tissue, the strontium-90 applicator has been found most satisfactory for this purpose. The following are a few conditions for which the treatment is indicated.

1. Corneal Vascularization: Corneal vascularization can be successfully controlled by beta ray therapy in about 40 per cent of cases treated. The technique for treating a corneal graft with a strontium applicator in our clinic is as follows: For postoperative cases, treatment is begun 10 to 14 days after operation and 1200 rep (roentgen equivalent physical) given weekly for 4 to 5 weeks. For preoperative cases, doses are in the range of 1500 rep and are given weekly for 3 to 4 weeks and operation is carried out at 10 to 14 days after the last treatment. Excessive radiation prior to corneal grafting may delay healing or cause harmful late effects. Preoperative radiation may be followed by postoperative treatment in the more heavily vascularized cases.

2. Corneal Ulceration: Mooren's ulcer frequently benefits by beta radiation treatment. Doses

of 1200 rep once a week are given for 3 to 4 weeks. Lederman[4] reported in 26 cases treated, 7 healed, 6 improved, and 13 failed or too early for evaluation.

3. Pterygium: A course of beta radiation given immediately following surgical removal of a pterygium offers excellent results. Occasionally beta radiation alone may be used for treatment of a small pterygium with success. In 20 cases[1] of primary or recurrent pterygium, a course of preventive beta radiation therapy with a strontium applicator (1200 rep weekly for three weeks) was given at our clinic starting immediately following surgical removal. No single recurrence was noted. In contrast, in our previous experience, there was about 30 per cent postoperative recurrence when preventive radiation had not been used. To date we have noted no lens change.

4. Corneal Scar: Early corneal scar in which vascularization is a prominent feature often becomes less dense after beta radiation therapy.

5. Hemangioma: Hemangioma of the margin of the eye lid or conjunctiva can be satisfactorily treated with beta radiation. The dosage used in our clinic with a strontium applicator is 300-400 rep given every other week for a maximum of four treatments.

While many leading ophthalmologists are enthusiastic about the results obtained with beta radiation, Merriam[6] and others have called attention to the harmful late effects produced by injudicious use, chiefly over-dosage. The common late effects observed are: telangiectasis of the conjunctiva, atrophy of the sclera, punctate keratitis, corneal scar, iritis and cataract.

The gamma emitting radioisotopes, including radioactive gold grain, tantalum wire and telecobalt unit have been used for treatment of deep seated ocular lesions, such as retinoblastoma and malignant melanoma. However, the results have not yet proved to be superior to the conventional method of treatment with radium and roentgen rays.

PHYSIOLOGICAL RESEARCH

In the realm of ocular physiology, radioisotopic tracer technic has provided us invaluable information. For example, as a result of radio sodium (N_{24}) tracer studies,[7] an important new concept of intra-ocular aqueous formation has been established. It demonstrated precisely a secretory mechanism existing in the ciliary body and the electrolytes entering the anterior chamber by secretion.

In conclusion, radioisotopes prove to be a very useful tool in ophthalmology. Many unexplored avenues exist and intelligent application of the tool in clinical and experimental research today will undoubtedly lead to many rewarding results tomorrow.

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THE SECRETARY'S OFFICE

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CALL

ANNUAL MEETING OF THE HOUSE OF DELEGATES

The 1958 Annual Meeting of the House of Delegates will be held in the Music Room of the Stratford High School, North Parade Street, Stratford, commencing at 10:00 o'clock in the morning of Tuesday, April 29.

Following luncheon, the House will reconvene for the completion of business.

W. Bradford Walker, President
Creighton Barker, Secretary

INTRODUCTION OF RESOLUTIONS

Article VII, Section 4 of the By-Laws of the Society provides:

Par. 1. All resolutions to be introduced before the House of Delegates at an annual, semi-annual, or special meeting, except resolutions and recommendations from the Council and resolutions and recommendations that may be contained in committee reports, shall be delivered to the Executive Secretary in time for publication in the official agenda for the meeting at which action is to be taken.

Par. 2. Resolutions and recommendations to be introduced before the House of Delegates at an annual, semi-annual, or special meeting by the Council and recommendations that may be contained in reports of standing or special committees of the Society shall be published in the official agenda for the meeting at which action is to be taken. The official agenda shall be distributed to the members of the House of Delegates at the earliest possible date preceding the meeting.

Par. 3. Resolutions and recommendations which do not meet the requirements of paragraphs 1 and 2 of Section 4 of this article may be accepted for action by a session of the House of Delegates by a majority vote of the delegates present. Such resolution and recommendations shall be referred at once by the presiding officer to reference committees appointed by him from the membership of the House. These reference committees shall consider the resolutions and recommendations referred to them and shall report, with recommendations, to the House before adjournment of the session.

COUNCIL MEETING

A regular monthly meeting of the Council was held at the offices of the Society on Thursday, February 20, 1958. The meeting was called to order by the Chairman, Dr. Gallivan at 3:00 P.M. There were present in addition to the Chairman, Drs. Walker, Russell, Johnson, Barker, Weld, Danaher, Gibson, Feeney, Ogden, Fincke, Buckley, Otis, Archambault, Gens, Seigle, Meyers, Gardner, Starr and Gilman. Absent were Drs. Clarke, Ursone, Schiavetti, Ottenheimer, Dwyer and Thayer.

NOTE: The items in the Agenda were not considered in the order that they had been presented originally.

PROTOCOL FOR SUB-COMMITTEE ON NUTRITION

The proposed protocol submitted by Max Caplan and Robert R. Levin, Sub-committee on Nutrition from the Committee on Public Health, was considered and paragraph eight of this protocol, "This Sub-committee would welcome an opportunity to meet with the full Committee on Public

Health to discuss in detail the many aspects of this fertile and rewarding field" was approved and the Secretary was directed to take steps necessary to arrange such a discussion.

ORTHOPEDIST FOR MEDICARE COMMITTEE

It was voted that Vincent J. Turco, Hartford, be a member of the MEDICARE Committee.

1958 CLINICAL CONGRESS

The Committee on Postgraduate Education did not have a report and recommendations concerning the 1958 Clinical Congress to present at this time and consideration of this item was postponed to the next meeting of the Council.

BUDGET ALLOTMENT FOR COMMITTEE ON INSURANCE

It was voted that a budget allotment of $200 be made to the newly established Committee on Insurance for the year 1958.

PRESENTATION OF A PAINTING OF THE BIRTHPLACE OF WILLIAM BEAUMONT TO THE MUSEUM OF WISCONSIN MEDICINE

It was voted that the Society pay the necessary expenses of Dr. Frederick W. Roberts for his travel to the Annual Meeting of the State Medical Society of Wisconsin, May, 1958, to present a painting of the birthplace of Dr. William Beaumont, Lebanon, Connecticut, to the Medical Museum of Wisconsin.

ADVISORY COMMITTEE TO THE COMMISSION ON TUBERCULOSIS AND OTHER CHRONIC DISEASES

Acting on the request of Dr. James R. Miller, Vice Chairman of the State Commission on Tuberculosis and Other Chronic Diseases it was voted that the President appoint the Advisory Committee requested by Dr. Miller.

REPORT OF THE COMMITTEE ON CASUALTY PLANNING

The report of the Committee on Casualty Planning had been resubmitted to the Council before discussion and it was voted that the report as submitted be presented to the House of Delegates at its Annual Meeting on April 29, 1958.

STANDARDS AND RECOMMENDATIONS FOR THE HOSPITAL CARE OF MATERNITY PATIENTS

This subject which had been before the Council at a number of previous meetings was again considered and that consideration was based upon a vote of a joint meeting of the Society's Committee on Hospitals and the Council on Professional Practice of the Connecticut Hospital Association held on January 15, 1958. This vote was:—"to refer the entire subject of 'Standards and Recommendations for the Hospital Care of Maternity Patients' back to the parent organizations for whatever action they may wish to take with the explanation that this Conference cannot approve the 'Standards' as studied by its Sub-committee, May 15, 1957, or as rewritten since, with especial reference to Section 1 regarding organization of staff, definition of terms, recommended general policy of obstetrical department consultations and management of the office patient."

Consideration was given to a letter of January 30, 1958 from Stanley H. Osborn, Commissioner of Health for the State of Connecticut, written in reply to an inquiry from the Executive Secretary. Carl E. Johnson, Treasurer of the Society and Chairman of the Society's Committee on Maternal Mortality and Morbidity was present and discussed the subject at length. On his suggestion it was voted that the matter be again referred to the agencies that made the original recommendations. This in compliance with the vote of the joint meeting quoted above. Dr. Johnson stated that he felt that the "Standards and Recommendations" could be simplified and clarified in a form that would be acceptable. The Executive Secretary asked if that part of the vote passed by the Council in a meeting June 20, 1957 that related to "statistical data upon which the observations of the committee were based" be rescinded, since it is not clear what "statistical data" were referred to in that vote. It was agreed that this part of the vote of June 20, 1957 should be rescinded.

ADVISORY COMMITTEE TO POISON INFORMATION CENTER

Reference was made to the action of the Council in a meeting on October 31, 1957 relating to the appointment of an advisory committee to the Poison Information Center of the State Department of Health that was authorized by legislative action of the 1957 session of the Connecticut General Assembly. On recommendation of the Joint Conference Committee of the Hospital Committee of this Society and the Council on Professional Practice of the Connecticut Hospital Association at a meeting held January 15, 1958 it was voted that Edward

T. Wakeman, New Haven, Angelo Mastrangelo, Jr., Stamford, Herbert Levine, Middletown, Bernard F. Mann, Jr., New Haven, and Mr. Richard Judd, New Haven, be asked to serve on an Advisory Committee to the Poison Information Center.

COMMITTEE TO REPORT ON THE REPORT OF THE HOSPITAL COMMITTEE (WELD COMMITTEE)

The Sub-committee of the Council appointed to report on the Report of the Hospital Committee which was submitted to the House of Delegates at its Annual Meeting on April 29, 1955, of which Stanley B. Weld is now the Chairman, asked that the presentation of its report be postponed to the next meeting of the Council.

RESOLUTION FROM THE SECTION ON DERMATOLOGY RELATING TO CONNECTICUT MEDICAL SERVICE

Reference is made to paragraph 11 of the minutes of a meeting of the Council held January 8, 1958 relating to correspondence from the Section on Dermatology of the Society and the request from that Section that certain resolutions passed by the Council of the Section on Dermatology on August 22, 1957 "be read into the minutes of the Council and the House of Delegates". Action on this matter was postponed from the meeting of the Council on January 8th.

After long discussion it was concluded that there was no precedent or purpose to be served by reading the resolutions into the records of the Council or the House of Delegates since no action upon them had been requested. They will be permanently filed in the records of the Council in the auxiliary minutes of the meetings of January 8th and February 20th.

COMMUNICATION FROM THE COMMISSIONER OF FOOD AND DRUGS

A communication from the Commissioner of Food and Drugs for the State of Connecticut relating to the illegal dispensing of drugs by physicians, was presented and discussed briefly. It was voted that the Chairman of the Council appoint a subcommittee of three from the Council to confer with Commissioner Frassinelli and Mr. Herbert Plank of the Department concerning this subject. The Committee was appointed: Chairman, Norman H. Gardner, Ralph L. Gilman, Royal A. Meyers.

NOMINATIONS FOR 1958-1959

A schedule of nominations for officers and committees of the Society for the year 1958-1959 was presented by the Nominating Committee. Certain necessary changes from the original nominating schedule were presented by the secretary. Chief among these changes, regretfully accepted, was a statement from Cole B. Gibson that he did not wish to be re-nominated as Speaker of the House of Delegates. A unanimous statement of appreciation of what Dr. Gibson had done during his term as Speaker was expressed. The Nominating Committee withdrew from the meeting to consider a nomination for Speaker, and later for Vice-Speaker. Conclusions relating to these nominations were arrived at and the nominations made entered appropriately in the nominating schedule. There was brief discussion of the nominations presented by the Nominating Committee and a few changes made in the schedule. It was finally approved for consideration to the House of Delegates on April 29, 1958.

RESOLUTIONS ON H.R. 9467—FORAND BILL

It was voted to comply with the recommendation of the Legislative Committee of the American Medical Association and express the Society's opposition to H.R. 9467, The Forand Bill, to the Connecticut members of the Congress. The Secretary was directed to prepare such a statement in consultation with the Committee on National Legislation.

RESOLUTION ON WORLD MEDICAL ASSOCIATION

On proposal of Dr. Weld, a resolution concerning the World Medical Association will be presented to the House of Delegates of the Society at its Annual Meeting on April 29th.

"WHEREAS, the House of Delegates of the American Medical Association has recommended that every member of the A.M.A. join the U. S. Committee of the World Medical Association, and has urged that its component state associations support and give official recognition to the . . . U. S. Committee in order to achieve the objectives of The World Medical Association in protecting the freedom of medical practice and increasing the influence of the practicing medical profession at the international level", and

"WHEREAS, this Society recognizes that it is as important for each physician to support his international organization as to support his county, state and national medical societies, therefore be it RESOLVED, that the Connecticut State Medical Society hereby expresses its support of the principles and objectives of The World Medical Association and urgently recommends that each member of this society join the U. S. Committee of W.M.A. and take an active part in its services to the medical profession and the peoples of the world."

POLICIES AND ADMINISTRATION OF CONNECTICUT MEDICAL SERVICE

On the request of Dr. Israel E. Blodinger, New Haven, he and Dr. Clyde L. Deming, President of the New Haven Medical Association, joined the meeting of the Council for the purpose of asking questions concerning the administration, conduct and policies of Connecticut Medical Service and the relationship of the Connecticut State Medical Society thereto. These questions had been previously submitted to the Chairman of the Council and he had formulated answers to them. Questions and the answers were read by Dr. Gallivan. Dr. Deming was given an opportunity to comment which he did not do and Dr. Blodinger was given an opportunity to comment which resulted in his asking a few questions of individual members of the Council. The interview concluded in about fifteen minutes which was less than the twenty minutes that had been allotted by the Chairman. Dr. Deming and Dr. Blodinger then withdrew and the relationship between the Society and Connecticut Medical Service was discussed at great length and entered into by many. Finally it was moved by Dr. Danaher, seconded by Dr. Gardner, and voted that "the Council do all in its power to make certain that the service provisions of the contracts issued by Connecticut Medical Service will be carried out for the benefit of the public of Connecticut and will bring this to the attention of the members of the State Medical Society and county medical associations."

DISCUSSION OF C.M.S BY COUNCIL

Comment was made that the Council had not had sufficiently frequent opportunity to discuss Connecticut Medical Service affairs and the relationship of the Society to that Corporation and it was agreed, with the vote, that such discussions be included in the agenda of all Council meetings.

Verbatim stenotype notes were kept for a large part of this meeting, particularly for item 9—Standards and Recommendations for the Hospital Care of Maternity Patients; 12—Resolution from Section on Dermatology; 17-Policies and Administration of Connecticut Medical Service. Four copies of the transcript of these stenotype notes are available to be read and quoted by members of the Council but it is believed that they should finally be in the permanent files of the Society.

NEXT MEETING OF THE COUNCIL

It was voted that the next meeting of the Council be scheduled for Wednesday, March 26th.

The meeting adjourned at 6:45 P.M.

Meetings Held in March

6	Committee on Public Relations
7	Conference Blue Cross coverage
10	Committee on Eye Care
11	Connecticut Medical Examining Board
12	Connecticut Medical Examining Board Committee on Maternal Mortality & Morbidity Committee on Postgraduate Education Committee on Hospitals Committee on Industrial Health
13	Connecticut Medical Examining Board Committee on Public Health Executive Committee, Connecticut Cancer Society
17	Committee on Thomas Patrick Murdock Scholarship and Loan Fund
19	Committee on Perinatal Morbidity & Mortality Committee on Accident Prevention Connecticut Cancer Conference
20	Special Meeting of Council Committee on Veterans Medical Care
24	Conference Committee with the Bar Association
25	Special meeting of House of Delegates Committee on School Health
26	Council
31	Connecticut Public Health Association

"Are You Fit To Drive"

A new booklet prepared by the American Medical Association pointing out physical characteristics that are necessary to be a successful operator of a motor vehicle is now available from the Secretary's office.

THE CONNECTICUT PHYSICIANS' ART ASSOCIATION 1958 EXHIBITION

Members of the Connecticut State Medical Society, their wives and children will be given an opportunity to exhibit their works of art at the Stratford High School, North Parade Street, Stratford, Connecticut, on April 29, 30 and May 1, inclusive.

Works Eligible: Oil, water color, tempera, pastel, black and white, etchings, photography, sculpture, ceramics. Copies may be entered, but must be so labeled.

Receiving: All art exhibits will be received by a committee at the High School, *One Day Only, Sunday, April 27, from 10:00 A.M.–2:00 P.M.* The Committee will be staging the exhibit in the afternoon, so all art exhibits must be delivered uncrated by the artist or his agent to the entry committee at Stratford High School, Rooms 219-220, before 2:00 p.m. Pictures should be suitably framed and *wired for hanging.*

Fee: There is a fee of one dollar for each exhibit. Children's exhibits will be free.

Labels: Fill out in duplicate the enclosed labels. Fasten one to each exhibit. Mail one, together with $1.00 entry fee each, no later than April 6, to Mrs. Orvan Hess, 29 Old Orchard Road, North Haven, chairman, Art Committee, Woman's Auxiliary to the Connecticut State Medical Society. Be sure to mail on time so your entry will be included in the program.

No exhibit may be removed until 4:00 p.m. on May 1 and must be removed by 6:00 p.m. Each County Chairman or her representative will check to see that all exhibits from her respective county have left the gallery.

Members who wish to exhibit may contact the following chairmen for further information and additional entry blanks:

John M. Freiheit, M.D., 85 Grove Street, Waterbury, president, Connecticut Physicians Art Association
Mrs. Orvan Hess, 29 Old Orchard Road, North Haven, cochairman, Woman's Auxiliary
Mrs. Anthony Appuzo, 17 Villa Avenue, Bridgeport, cochairman, Woman's Auxiliary

COUNTY CHAIRMEN

Mrs. C. King Hamilton, Brookfield Center	Fairfield County
Mrs. Ernest Rosenthal, 17 Pine Road, West Hartford	Hartford County
Mrs. Willard Buckley, Ballfall Road, Middletown	Middlesex County
Mrs. Elliott Brand, 145 Cleveland Road, New Haven	New Haven County
Mrs. Thomas Danaher, 445 Prospect Street, Torrington	Litchfield County
Mrs. James Harkins, 61 Lincoln Avenue, Norwich	New London County
Mrs. Ernest Bolt, Jr., 132 Mansfield Avenue, Willimantic	Windham County

Works will be judged by professional artists on Sunday afternoon, April 27th.

A special effort will be made to recognize merit in each group relative to the experience of the artist so it is IMPORTANT to fill in the entry blank completely, stating number of years you have been enjoying this hobby. Exhibits by professional artists are welcome and will be judged in the professional class.

NOTE: First Award winning entries of physicians will be exhibited at the American Medical Association Meeting in San Francisco at the expense of the Connecticut Physicians' Art Association.

These entries will be protected by insurance when sent to the National Meeting.

The Society can assume no responsibility for loss, damage, or any cause whatsoever.

THE HISTORIAN'S NOTE BOOK

EARLIER HORIZONS

Ira V. Hiscock, *Sc.D., New Haven*

As a member of the New Haven Board of Health Commissioners for thirty years and a former president, my interest in historical affairs led me to the clearly written, long-hand minutes of the early meetings of the Board of Health. These treasures are kept in the safe of the Department of Health in City Hall. Names of those concerned with public health officially are familiar and respected 152 years later and account for a solid foundation for developments toward new frontiers.

At a meeting of the Board of Health in the Town of New Haven* "holden" at the office of Henry Daggett, Esq., on the 17 day of March, 1806, Henry Daggett was, by ballot, elected president, and Elisha Munson, clerk. It was voted that Noah Webster and Isaac Tomlinson be a committee to fix the landmarks and boundary lines of the quarantine ground; and that Elisha Goodrich, Simeon Baldwin and John Barker, Esquires, be a committee to devise a general scheme of regulations under the law "providing in case of sickness", and make the necessary arrangements for carrying the same into effect. The significance of the law and of the harbor was emphasized in a meeting three days later when notice was given that "if any person violates the provisions of the aforesaid laws, the penalties will be most vigorously enforced upon such delinquent"; and it was voted that "the limits assigned for quarantine grounds in the harbor be as follows, viz: the northern limits, be a direct line from Hotchkiss rope walk, to an eminence in East Haven, covered with a thicket of trees a little to the northward of Mr. Kneeland Townsend's dwelling house; the south limit, a line due East of the Eastern point of the Beach."

The Author. *Lauder Professor of Public Health, Yale University School of Medicine*

It was ordered "that to prevent the introduction of disease from any port or place North of the capes of Delaware, as well as to prevent unjust alarm relative to the existence of malignant fever in this town, the committee, from time to time, in the name and behalf of this Board, correspond with the Boards of Health in this and other states, especially, in the city of New York." The standing Health Committee was ordered set up at the same time. The members were elected by ballot, on March 22, 1806 as follows: Dr. John Barker, Noah Webster, Esq., Isaac Tomlinson and Daniel Mead; while it was voted that Simeon Baldwin, Esq., be attorney and that Dr. John Barker be appointed Health Officer for the Port of New Haven.

There was much activity and three weeks later the Board ordered regulations published in both the newspapers printed in this city, including an order that all the "necessaries" over the creek and water course in the eastern part of the town be removed, and that all communications between any "necessary", stable, or hog pen, and the creek or water course be prevented, "and every necessary either near said creek or in any other place not having a vault, shall on or before said last day of May, be furnished with a vault at least three feet square by four feet deep." It was further ordered that all tan-vats which are used, and contain stagnant water, especially on the south side of George Street, and all pools of stagnant water near any dwelling house, be filled with fresh earth by the owners of the land on which they are situated, on or before the 10th day of May next, thus requiring quick action. There were orders against throwing away offals, trimmings of hides, entrails of fish, and dead animals. A report was made to the committee of the proprietors of the Common and Undivided Lands that a portion of the flats southerly of the Fish Market had become a nuisance.

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*The first settlers landed on the Hector (Quinnipiac Harbor) in April 1638; in 1784 New Haven was incorporated as a city embracing a population of approximately 3,000 persons; in 1807 the Embargo Act and the war of 1812 checked marine commerce. In 1824 a freight and steamboat service was chartered; in 1838 the railroad to Hartford was opened; with completion to New York in 1849.

On July 9, 1806 a letter written to the Board of Health of New York City referred to the preservation of public health as always an interesting object and to the approaching season when malignant diseases usually invade our country, and to the importance that the officers to whom the preservation of public health is interesting should have "the most prompt and precise intelligence of the real state of facts that they may be able as well to quiet premature and unfounded alarms, as to notify their fellow citizens of real danger," and requested and offered communication of such intelligence when occasion required.

Progress was reported by the Health Committee at the annual meeting of the Board of Health held in March of 1807; and it was voted that the selectmen be requested to pay the president and members of the committee for said year of 1806 the sum of five dollars for their services, and also to Dr. John Barker one dollar and fifty cents for the expence of printing "interrogatories." (See appendix.) On the 12th day of August, after regular quiet meetings, a special meeting of the Board was called, received the health officer's report respecting the ship Ann and Hannah, ordered to quarantine ground, and adjourned "till tomorrow evening at sunset". Then it was decided that it was inexpedient to suffer the cargo to be unladen and stored in the store of Daniel Green, or in any other part of the city until the further order of the Board. The consignee of the cargo later produced a certificate "under the hand of several reputable physicians expressing their opinion" and the cargo was unloaded under supervision.

That the members of the committee and of the Board were alert to possibilities was illustrated on September 13, 1819 when it was voted that the Health Committee meet daily at 8:00 A.M., due apparently to the appearance of disease in New York. By September 14, physicians* were called upon and given an order issued by President Isaac Mills "to make daily report of such cases of pestilential or malignant fever or disease as occur in your practice respectively specifying each patient's name and place of residence on penalty of the law." A few days later orders were issued that all vessels coming or arriving at the New Haven port from the Port of New York should perform quarantine for the term of fourteen days, as it appeared to the Board that a "malignant or pestilential fever or disease exists in the City of New York. Great vigilance was exercised for a hundred years or more regarding incoming ships.

This was serious business. At a meeting of the Board on August 26, 1822, in the office of Judge Isaac Mills, "ordered that from and after the 27th day of instant August no person or persons from the City of New York shall be suffered without the permission of the health officer to enter the limits of this city and continue therein for the space of two hours until such person shall have been absent from the City of New York at least seven days: and any person or persons violating this order shall be subject to a fine not exceeding one hundred dollars."

The chief entry for 1823, (while Timothy P. Beers was health officer) is in the form of a memorandum stating that as the summer and autumn of the year 1823 were esteemed healthy, a majority of the Board of Health did not convene at their appointed stated meetings on the first Mondays of June, July, August, September and October and no business was done. In 1824, new names on the Board of Health included James English, William Mix, with Elisha Munson continuing as clerk and Isaac Mills as moderator. Of practical and timely significance is the vote of the Board of Health on February 3, 1824, "that the selectmen of New Haven be a committee for and in behalf of the Board of Health to contract with the practicing physicians of the town or such part thereof as shall be desirous to undertake to vaccinate generally all persons in the town who have not had the small or kine pox; provided the same can be effected for the sum of one hundred and fifty dollars and all under the immediate inspection of said committee; and provided said committee cannot contract with the practicing physicians of the town or any part of them for said sum, then contract with some other physicians or person to do the same on terms aforesaid and all at the expense of the town." In June, Captain Richards of Orange, with the Brig Jane, arrived in the harbor from the West Indies and came directly up to the Long Wharf without stopping or coming to anchor on the quarantine ground in violation of the state laws, and the attorney for the Board of Health was instructed to take necessary action.

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*Drs. Elisha Munson, Levi Ives, Nathan Smith, Obadiah Hotchkiss, Elijah Monson, Eli Eves, Timothy P. Beers, Jonathan Knight, Samuel Punderson, Virgil Dow, Doctors Bennett, and John Tilsworth.

Yale College appears in the deliberations of January 31, 1825, because the faculty had ascertained that one of the academic students was sick and confined with a disorder call "Varioloide Smallpox, believed to be contagious in some instances, which endangers the wellbeing of the college, and probably the health of the other students—and whereas said faculty have, for the time being, hired the house in the Newtownship known, and called by the name of Wallace house, now belonging to the Estate of Eli Whitney, Esq. deceased, situated northerly of the Steamboat Hotel, about sixty rods, for the purpose of removing said student, and also for the purpose of removing any and all other students who shall or may be afflicted with the same or any other contagious disease, into said Wallace House, there to be nursed, provided for and taken care of, at the charge and expense of said faculty, provided, the above arrangements should be approved by the committee of the Board of Health in the town of New Haven. Whereupon the committee approve of the arrangements so made by the faculty of Yale College provided that the various roads and avenues leading to said Wallace House be fenced up, also at the expense of the faculty and it is ordered, that no person or persons except the nurse or nurses and attending physicians be allowed to go to, or to enter said House so long as it shall be occupied by any person or persons, infected with any contagious disease, on penalty of the law in such case provided."

On June 20, 1832 a meeting of the Board of Health was held in the Probate Office, attended also by Drs. Beers, Knight, Hooker and Tully who reported that the New Haven Medical Association two days earlier resolved as an opinion that a building or buildings be procured immediately for the reception of persons that may be attacked with cholera, and who are destitute of home; and that nurses ought to be engaged and held in constant readiness. Action taken at a meeting held at the State House on July 3 added Drs. Charles Hooker, Alfred Munson, Timothy Beers, Nathan Ives, and several others to the Health Committee. On July 11, in the forenoon, the Board voted that the Health Committee confer with the directors of the hospital and make arrangement with them for the use of said hospital, for any one that may be attacked with cholera. However, at an afternoon meeting on the same day it was reported that the directors of the State Hospital declined having it appropriated for that purpose. On the 19th of July, William W. Broadman and Thomas G. Woodward were appointed in addition to a previous committee chosen to procure a House to accommodate those who may be sick of the cholera. Again the question of a hospital came up on June 2, 1849, when it was ordered by the Board that William H. Ellis and David W. Buckingham have power, by and with the advice and consent of the selectmen of the town of New Haven to procure a suitable building for a hospital, in such location as may by them and the said selectmen be thought best. By June 7 a house had been procured and steps were taken to put it in order. On June 26 Dr. Daggett reported two cases of cholera—a mother and daughter from New York; and on June 27, another case. Then followed a series of forty reports of cholera within a few weeks, at least ten fatal, among persons of 18 months to 60 years of age.

In view of present redevelopment activities, it is noteworthy that on August 4, 1852 a Nuisance Committee of the Common Council acted positively on a Board of Health report condemning conditions in the Barnett building situated in the rear of 121 George Street, "occupied by and crowded with a large number of families and that diseases of various kinds prevail among them, and that many deaths have occurred and that the limited space of grounds appropriated to said building and the nature of the ground on which it is built, and that the arrangements for wells and privies are such that the occupation of the building by families with its present arrangements is a public nuisance and source of filth and disease—do hereby declare said premises to be a public nuisance and in its present occupation injurious to the health of the inhabitants of this town."

At the annual meeting of June 1, 1857, John W. Mansfield was elected president, and Edward T. Sanford, clerk and attorney, with Dr. Charles A. Linsley and Dr. Thomas H. Totten as health officers. As in previous years, the procedure of carting whitefish received much discussion in board meetings, along with other questions of nuisances and of housing and sanitation. A slip of paper inserted with minutes of 1858, signed by Nathan B. Ives, clerk, stated that at a meeting of the medical association July 14, it was "Resolved: that this association decline (as a body) expressing an opinion relative to the propriety of stopping the intercourse between this city and New York by steamboats."

A final note is given for the annual meeting of June 2, 1868, relative to portions of the creek and water courses westerly of George and Meadow Street and running from Broad Street to the Dyke, so-called, regarded in their present condition as a nuisance and source of filth, injurious to the health of the inhabitants of this town." "It was ordered that action be taken by the owners of adjoining land, and that notice of the foregoing order be given by publishing the same three times on aftermath days in each of the daily papers of the city." It is also observed that as early as March of 1806 it was ordered that the Health Committee cause all persons affected with "malignant disease", who shall fall under the care of the Board of Health and need relief, be removed to hospital or other places as the selectmen prepare and such sick be provided for by the selectmen and the expense charged to the town or collected from such persons or corporation as shall be liable for the same.

APPENDIX

For vessels on quarantine ground, Port of New Haven, prepared by Board of Health and adopted the 20th of March, 1806 in *meeting held in office of Henry Daggett, Esq. President.*

From what port or place did your vessel come? Was any infectious disease prevailing at that place to your knowledge? Have you touched at any other place on your voyage? And was any malignant or infectious disease prevalent, to your knowledge?

Has any person been sick or died on board your vessel, during your outward or homeward bound passage or in port, since you left the United States and of what disease?

Have the vessell, beding and apparel of the sick and attendants, been cleaned since such sickness—and in what manner?

Of what does your cargo consist—(or if perishable,) in what condition is it?

Note: The health officer "shall receive two dollars for visiting each vessel which shall be entitled to a certificate of health, and three dollars in case any such vessel shall be required to perform quarantine and such officer shall not be required to visit any vessel in the night season nor shall he be required to give any certificate in case he shall be ill treated on board, or in case any person shall refuse to disclose as aforesaid. (Elisha Munson, clerk)

Medical School Graduates to Get "Financial Planning for the Physician"

Judging from the letters and telephone calls, "Financial Planning for the Physician," the two-part article by Bridgeport financial consultant Norman F. Dacey which appeared in the December and January issues of the *Journal*, was warmly received.

Comments like "a wonderful article" and "if only I'd known these facts when I started practicing" suggest that this definitive analysis of the fundamentals of estate planning for the physician may well be a financial primer for Connecticut medical practitioners for years to come.

Many members have ordered reprints to give to their friends outside the profession. However, it remained for a well-known surgeon to come up with an idea which we think will appeal to many readers.

He writes:

> "I read the wonderful article, 'Financial Planning for the Physician'. May I obtain 200 reprints of this article which I feel I could do a good job with in giving one to each member of the graduating class of my college, Jefferson Medical College?"

The editors of the *Journal* warmly endorse the idea of making reprints available to the graduating classes of the various medical schools. If each of us had had a little of the practical guidance which "Financial Planning for the Physician" provides when we were leaving medical school, we might all have a greater measure of financial security now. As Mr. Dacey said in the article, "Dying with your boots on is fun—if you don't have to."

Here is a chance to make a real contribution to the careers of the young men and women who are following in our footsteps, a chance to help them avoid some of the financial mistakes we may have made. Why not write to *your* medical college and tell them that you are sending a reprint of the article for each member of the graduating class? The author has agreed to make them available at cost. If you will write him (Norman F. Dacey, 114 State Street, Bridgeport, Connecticut) and advise him of the quantity, the reprints will be sent direct to the school in your name. There will be no duplications. If reprints have already been ordered for your school, your order will be cancelled and you will be so advised.

CONNECTICUT MEDICAL SERVICE

PROFESSIONAL POLICY COMMITTEE

Henry A. Archambault, Taftville, *Surgery*
John D. Booth, Danbury, *Surgery*
Gray Carter, Greenwich, *Internal Medicine*
Edwin R. Connors, Bridgeport, *General Practice*
Philip M. Cornwell, Hartford, *Urology*
Francis H. Foley, Bridgeport, *Orthopedics*
Edward R. Howe, Hartford, *Obstetrics and Gynecology*
Roswell D. Johnson, New Britain, *Pediatrics*
William J. Neidlinger, Hartford, *Otolaryngology*
Alan J. Ryan, Meriden, *Surgery*
Harold E. Speight, Middletown, *Internal Medicine*

CONNECTICUT PLAN – INTEGRATED

Medical Catastrophe Expense Benefits Policy – CG
An Insurance Company View

Steven D. Williams, *South Windsor*

The Author. *2nd Vice President of The Connecticut General Life Insurance Co.*

The decision by Connecticut General to undertake the experiment of the "Connecticut Plan," reached after long and careful evaluation, was based on the urgent need of private enterprise to seek solutions to the rising costs of health care.

Readers of the Journal do not have to be told that it costs more now to be disabled. People are demanding the latest and best medicines and treatments. Costs of care have risen almost a third since 1950. Total admissions to hospitals are up. The emphasis on continuing research, so vital in the conquering of certain diseases, points toward further change and improvements, with added costs, in the years to come. Insurers are being forced to reassess their experience and re-adjust their rates.

Add to this the inflationary aspects of our economy and the situation is of priority concern to those interested in this subject of medical care. No longer can the individual ignore the problem by waiting until he receives the hospital or physician's bill for needed attention. He has to plan for it, to insure against these costs, one way or another.

One example of such planning which has had great growth in the past decade, has been the purchase of group and individual insurance against some or all medical care costs. Competition and a desire to experiment have prompted insurers to provide a wide selection of different kinds of coverage, both group and individual. Consequently, an individual is well able, through insurance, to exercise his right of decision as to the extent and nature of protection that he wants to buy. Insurers have not only been ingenious in their development of different types of benefits, but they have promoted the availability of these benefits to broad segments of the population.

Another outstanding example, developed during the past twenty years, is use of the cooperatives—Blue Cross and Blue Shield. Those of us who choose to participate in these plans accept their limitations in benefits and their imposition of a standard pattern of protection designed to do great good to people en masse, rather than a plan for each of us as an individual.

In meeting this demand, there are those who would go down the road toward some sort of collectivism or socialism. Many people seem willing to sacrifice completely their privilege of individual decision because they are unwilling to shoulder the responsibilities that go along with this privilege. There are many others, fortunately, who feel differently. The growth of all types of programs—through Blue Cross, Blue Shield, the medical fraternity and insurance companies—attests to this fact.

We look on this Connecticut Plan as an important additional step in the direction of some very real cooperation between the medical profession and the insurance business. Although we have characterized the effort as experimental, cooperation between these two groups of people, medicine and insurers, seems to be particularly appropriate. Physicians, historically, are firm believers in the rights of the individual. The products of the commercial insurers are designed for the purpose of aiding the individual in preserving these rights. Both of us have a predilection against unwarranted outside regimentation, which can all too easily lead to some form of socialization.

Group Medical Catastrophe protection, a relatively new development, was adopted, as a pioneering venture, by Connecticut General for its own people in 1950. It was designed to fill the need in the situation when a long-drawn out illness or a serious injury required prolonged medical, surgical or hospital care. Benefits under this type of coverage are determined in part by the individual's own financial situation, benefits starting when the medical expenses go beyond benefits he has received from his group hospital or surgical insurance plus a certain percentage of his own salary or some relatively small stated amount.

Under the Connecticut Plan, the Group Medical Catastrophe coverage follows this general pattern and is basically simple. When medical expenses occur, the benefits paid by the base plan, CMS and either Blue Cross or a Connecticut General insured hospital plan, are first applied. Should the expense exceed the limit of these benefits, then a deductible is applied. The purpose of the deductible is to eliminate a large number of claim payments of small dollar amounts, thereby reducing the overall expense of handling. After this, further expenses are substantially covered on a coinsured basis. Coinsurance is required to deter the individual from obtaining unnecessarily expensive medical attention. It retains for him the privilege of individual decision by sharing the responsibility for seeking only the kind and amount of medical care he needs. Both the deductible and coinsurance provisions are designed with the purpose of providing broad coverage at prices that can be afforded by the public generally.

Much flexibility is allowed in designing the Group Medical Catastrophe coverage, although most programs will follow a limited number of patterns. The deductible amount will usually be $100 for each disability, but this amount may be varied. Under the coinsurance clause, the portion of the expenses to be covered by the Group Medical Catastrophe program will likewise usually be 75 per cent, sometimes 80 per cent. A maximum amount payable is always required and is usually $5,000. Higher maximums are also available.

Types of expense not covered are dental fees and fees for cosmetic surgery (unless the treatment is due to an accident), eye glasses and hearing aids. Covered expenses include not only charges made by doctors or hospitals, but nurses' charges, costs of medicines or pharmaceuticals, and costs of prosthetic devices as well.

Two examples will illustrate how this coverage operates.

EXAMPLE I

Assume a covered individual incurred hospital, surgical, medical and nursing expenses totaling $2,250. The total amount payable under his basic Hospital plan was $450. CMS provided $200 for surgery which covered surgical charges in full. The Catastrophe plan would pay as follows:

Total Covered Expenses	$2,250
Less Amount Paid by Basic Hospital and CMS	650
Less Deductible Amount	100
Balance	$1,500
Amount Paid by Catastrophe Plan (75% of Balance)	$1,125
Total Amount Paid by Insurance	$1,775
Total Amount Paid by Patient	475

EXAMPLE II

Assume a covered individual required unusually extensive surgery. His hospital, surgical, medical and nursing expenses totaled $4,500. The total amount payable under his basic Hospital plan was $1,300. Of the total surgical charges of $800, CMS provided payment of $500, their Sectional Maximum. The Catastrophe plan would pay as follows:

Total Covered Expenses	$4,500
Less Amount Paid by Basic Hospital and CMS	1,800
Less Deductible Amount	100
Balance	$2,600

Amount Paid by Catastrophe Plan (75% of Balance)	$1,950
Total Amount Paid by Insurance	$3,750
Total Amount Paid by Patient	$ 750

The unique feature of the Connecticut Plan is embodied in one of the provisions of the Medical Catastrophe policy, which reads, "The opinion of the Professional Policy Committee of Connecticut Medical Service, Inc. as to whether or not expenses arising from charges made by a legally qualified physician or surgeon for professional services are necessary and reasonable shall be conclusive."

Connecticut General has long recognized that doctors are the keystone in the complex pattern of medical care that has developed in this country. We have also felt that the best judgment as to the necessity of care and the reasonableness of fees could be obtained only from the medical profession itself. The policy provision cited above gives substance to these beliefs and places the responsibility for determination of reasonableness squarely in the hands of the profession.

The premiums that are charged to individuals insured under this program will ultimately be determined by the claim costs. By placing the responsibility for determination of reasonableness in the hands of the medical profession, an opportunity is presented to the doctors of this State to determine if broad medical care coverage will be available at prices that can be afforded by the public generally. Some alternatives that could develop, should this opportunity not be accepted, are not pleasing to many of us.

As we start out with this program, our greatest desire is to put some actual plans into operation. Only in this way will we be able to identify and work out the problems, which will most certainly arise. This will require give and take on the part of both the Connecticut General and CMS. We know that the problems will be solvable. From working with actual programs, we know that our organization together will be capable of developing an effective benefit program.

Our objectives are clear. We both wish to develop the broadest possible coverage for the least practical cost,

1. that will preserve for the individual his right to select not only the physician of his choice but also the extent to which he will be insured,

2. insurance protection that will not interfere with either the interests or the integrity of practicing physicians,

3. coverage that will recognize that the function of insurers is to carry risks that are too great to be carried by individuals.

World Health Day: April 7

On April 7 the World Health Organization observed its tenth anniversary. This occasion offers an opportunity to review and publicize the strides made during the past decade toward the goal set by WHO, viz., the highest possible level of health. The achievements of this past decade are many: new technical means; intensified educational programs; improved health legislation; expanded facilities for the rapid exchange of medical information; some notable improvements in sanitation, nutrition, and communicable disease control.

Mortal disease is changing from year to year. Most significant is the phenomenal decline in mortality, with those countries having the highest death rates in the first half of this decade showing the greatest reduction in the last half. The pestilences—cholera, typhus, smallpox, plague, relapsing fever, yellow fever—have shown a dramatic decline in extent and severity. Fewer and fewer women die in childbirth and more and more babies survive their first step into this world. Malaria, although still a huge international health problem, has been reduced in morbidity and mortality by 30 per cent. Tuberculosis is killing relatively fewer people each year and those succumbing to this disease are now most numerous among the over 60 year age group. Pneumonia, diphtheria, and whooping cough are decreasing. Heart disease, cancer and accidents are on the increase and command serious attention.

The work of the World Health Organization and the results accomplished to date bear testimony to the fact that international collaberation in health has justified itself and that it holds unlimited possibilities for the future.

Stratford's present population of about 40,000 people are living in a progressive and expanding community. The school building program is good; the Fire and Police departments are very efficient; and the town Government is by popular vote.

NEWS FROM WASHINGTON

New Legislation

JENKINS-KEOGH

Senator Sparkman (D., Ala.) and a majority of the Senate Small Business Committee have introduced a bill for tax relief of small independent businessmen and other selfemployed which contains a provision similar to the Jenkins-Keogh legislation now pending in the House Ways and Means Committee. The number is *S. 3194*.

The bill would permit *any* individual not covered by or receiving payments from an employer's pension or stock bonus plan to defer income tax payments on money placed in a retirement fund for himself or his beneficiaries. Annual payments would be limited to 10 per cent of income (maximum of $1,000), except that in addition 1 per cent could be added for each year over 50. Retirement "credits" not used could be carried over for the next five years.

Deposits could be placed in a restricted retirement fund operated by a bank, or paid as premiums under a restricted retirement policy issued by a life insurance company. Funds would have to be based on written agreements, and could not be reassigned. Types of investments the fund could purchase would be restricted. A restricted retirement policy is defined as "an annuity, endowment or life insurance contract or combination thereof, other than a term insurance contract". Any portion of premiums allocable to cost of life insurance could not be deducted. An individual would be allowed to name his death beneficiaries.

Banks and insurance companies would be required to advise the Secretary of the Treasury of persons taking advantage of the bill. If a taxpayer wished to obtain cash value of his policy prior to age 65, or lump-sum payment after that age, tax penalties would be imposed. However, if the taxpayer after age 65 or his beneficiaries received the money as retirement pay, the income tax on it would be at the ordinary rate.

OTHER TAX BILLS

Senator Smathers (D., Fla.) proposed in *S. 3162* to allow a taxpayer to deduct from taxable income all money paid for tuition and fees, books and supplies, travel expenses and meals and lodging while attending a college. Benefits would apply to spouse or dependents as well as taxpayer . . . *H.R. 10394* by Rep. Matthews (D., Fla.) would allow deduction of all medical expenses, including drugs; under present law only such expenses in excess of 3 per cent of adjusted gross income are deductible.

FOOD ADDITIVES

Chairman John Bell Williams (D., Miss.) of the House Interstate Subcommittee on Health wants to prohibit the use of new food additives that have not been adequately pretested to establish safety. The bill is *H.R. 10404*. It defines a new food additive as "any substance . . . intended to be newly used in the manufacture, packing, processing, preparation, or other fabrication of any food and thus to become a component of such food, and which is not generally recognized by (qualified) experts as safe. . . ." Such additives could not be used until the Secretary of HEW has had opportunity to evaluate the results of specific pretesting procedures. Evaluation would have to be completed within 120 days of submission of data, but this could be extended another 60 days by mutual agreement.

If an additive has been found unsafe, but the manufacturer decides to use it regardless, he must first give 30 days' notice to the Secretary, who could then resort to court action to prevent use of the additive.

SOCIAL SECURITY

Rep. Dingell (D., Mich.) in *H.R. 10578* proposes to liberalize requirements for disabled to obtain social security benefits. Under present definition, an applicant for either disability payments or "freeze" benefits is eligible only if he is found unable to engage in *any* substantial gainful employment because of a physical or mental impairment. Mr. Dingell would have the applicant receive benefits if he could not obtain employment *in an occupation similar* to the work he engaged in prior to his disability . . . Another Dingell bill *(H.R. 10583)* would accept as conclusive evidence of disability for either of these benefits the submission of a statement from a federal or state agency that the disability fits that agency's definition and that such agency is paying benefits to the applicant.

TAX RELIEF

Rep. Scott (R., Pa.) would increase the amount of a personal income tax exemption for a dependent attending college from the present $600 to $1,000. His bill is *H.R. 10506* . . . Rep. May (R., Conn.) would allow a deduction of up to $800 per year for tuition and fees for a taxpayer, his spouse or dependent if they are students for five months at an institution above the high school level. His bill is *H.R. 10543*.

VA

In *H.R. 10747* Rep. Beckworth (D., Texas) would instruct VA to ignore the employment status of an applicant for total and permanent disability benefits if he submits competent medical evidence as to his disability . . . in *H.R. 10797*, Rep. Teague (D., Texas) proposes a presumption of service connection for any condition acquired during wartime service after the veteran had served 90 days on active duty.

SOCIAL SECURITY

Rep. Moore (R., W. Va.) in *H.R. 10845* would wipe out the present law's requirements that the applicant have a certain number of years of social security coverage to be eligible for disability benefits, and instead require only that he have "at least one quarter (three months) of coverage." . . . Under present law, an applicant is entitled to disability payments if his condition is such that he is unable to engage in *any* substantial gainful activity. In *H.R. 10844* by Mr. Moore would, as a practical matter, authorize payments if the applicant could not obtain employment. Rep. Will E. Neal (R., W. Va.), a physician, has identical bills, *H.R. 10869* and *10868*, respectively.

House Subcommittee Inquiry Into Tranquilizer Advertising

Four out of five witnesses, all physicians, have informed a House Government Operations subcommittee they don't believe pharmaceutical companies are misrepresenting tranquilizer drugs in literature or advertising. The subcommittee, headed by Rep. Blatnik (D., Minn.), first concerned itself last year with advertising and marketing of certain proprietary drugs. The inquiry has since been broadened to tranquilizers.

Sundry Notes

No longer a member of ODM's Health Resources Advisory, Dr. Francis J. Braceland, psychiatrist, is now free to join Department of Defense medical advisory group (which he has done) . . . AEC's latest batch of research contracts in medicine include $225,000 to New England Deaconess Hospital (Dr. Shields Warren); $238,000 to Sloan Kettering (Dr. C. P. Rhoads) and $204,000 to Columbia U. (Dr. Gioacchino Failla).

The American Nursing Home Association has gone on record against the Forand Bill, *H.R. 9467*, which provides free hospitalization and surgical services for the retired aged.

Medical Lobbying Seen at Crucial Crossroads

A succession of happenings in Washington recently has advanced the moment of decision for organized medicine. Such seemingly unrelated events as Senator Byrd's announcement he will retire, a bill dropped into House hopper and opinions expressed in Chicago at a meeting on medical education all point to a change of direction for medical lobbying. It will be a shift not without acute discomfort, perhaps even rebellion, among the profession's more politically enwrapped.

BYRD'S RETIREMENT

Decision of Senator Harry Flood Byrd (D., Va.), now reversed, to leave office was dictated by more than personal reasons. He has had his fill of resisting big spending by government, of deeper and deeper inroads by Washington dollars and policies into the state and local government. More than that, he seems to have realized his was a losing battle. Can the forces who oppose liberalization of social security, Federal subsidization of medical schools and other legislation putting more government into medicine be any less pessimistic?

FOGARTY'S NEW BILL

The bill referred to above is *H.R. 10608*. Its sponsor is Rep. John E. Fogarty (D., RI), most powerful member of the House on national health legislation. This bill authorizes $20 million annually for state grants to restore the physically and mentally handicapped to "independent living." Such sums as needed could be used to pay for medical care, surgery, hospitalization, appliances.

H.R. 10608 was introduced in February. Three years—even one year—ago an organized deluge of protests from medical societies would have descended on members of Congress within 72 hours. But nothing like that has happened in this instance.

LAITY LAY IT ON THE LINE

At AMA sponsored Congress on Medical Education and Licensure in Chicago, medicine was advised—in effect—by lay speakers to adjust its tuning knob, to recognize changes in society's attitudes on virtually every aspect of medicine and be guided accordingly. What was said (by Eisenhower advisor Meyer Kestnbaum, among others) would have sounded inflammatory a year or so ago to an orthodox medical group. Recently it was greeted with applause.

More Hospital Building Asked to Curb Recession

Rep. John E. Fogarty (D., RI) wrote a letter to President Eisenhower recently, asking him to increase Federal grants for hospital construction nearly 200 per cent as an antirecession move. This would have a more rapid impact on the economy than most of the other types of construction, said Rep. Fogarty, and existing Hill-Burton machinery in the states is assurance that the program could be started swiftly. He urged the White House to request a $210 million Hill-Burton appropriation for coming fiscal year, rather than the $75 million now budgeted.

This is a shrewd move by the New Englander, who heads the subcommittee which is now working on Dept. of HEW budget for 1958-59 and whose House leadership on national health legislation is unquestioned. If President Eisenhower accedes, Rep. Fogarty can rightfully take the credit. If White House responds negatively, he can—and probably will—put over a substantial increase for Hill-Burton grants with confidence that the Senate will concur, or even better it.

Both branches of Congress are receiving communications daily calling for continuation of this State-Federal hospital construction plan and provision of increased funds.

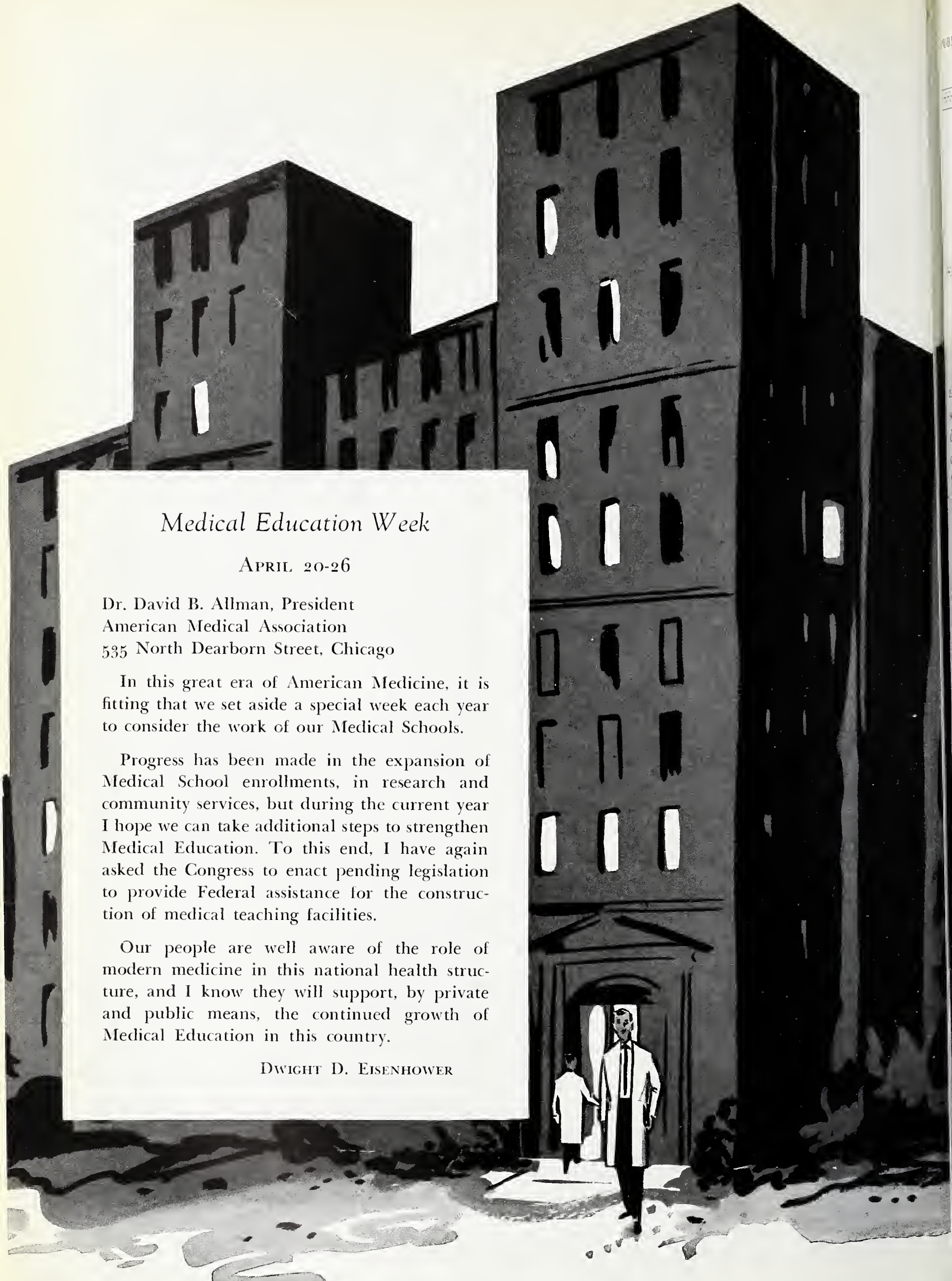
The Fogarty letter observes that in the next fiscal year alone the states could use more than $500 million in Hill-Burton grant moneys if it were available. This is based on their planning reports filed with PHS. The Congressman named 11 hospitals and convalescent homes in his own State which could qualify for $25,000 to $850,000 in Federal assistance, for a total of $2,686,000.

"An increase in the budget estimate for fiscal year 1959 to the full grants authorization of $210 million," said Fogarty, "would (a) help bolster a sagging economy and (b) would for the first time in many years give the states an opportunity to make some impact in the backlog of need for community health facilities. Both of these objectives would relieve a great deal of human suffering."

U.S. Chamber Proposes Seven-Point Education Program

The National Chamber of Commerce is advancing its own educational program of seven points. It does not include the same broad scholarship plan that is being proposed by the administration and some members of Congress, but would expand several operations now in effect and offer taxation advantages to schools, teachers and parents who pay college bills.

The Chamber proposes: *1.* Extend the life of the President's Committee on Scientists and Engineers to stimulate local, state and private action to improve science education and use of scientific manpower. *2.* Expand the National Science Foundation's program to improve teaching and provide research fellowships. *3.* Have the U.S. pay the full costs of research, military training and other services in its contracts with schools. *4.* Allow income tax deductions for a "reasonable percentage" of the costs of college education. *5.* Offer income tax incentives to individuals, foundations, and corporations to stimulate support for higher education. *6.* Permit teachers to make "reasonable" deductions from taxable income for money spent taking courses to improve their professional competence. *7.* Continue the college housing loan program, incorporating amendments by administration that would "restore this program to its original purpose of making capital funds available to expand college housing in institutions having no other satisfactory sources for such funds."



Medical Education Week

April 20-26

Dr. David B. Allman, President
American Medical Association
535 North Dearborn Street, Chicago

In this great era of American Medicine, it is fitting that we set aside a special week each year to consider the work of our Medical Schools.

Progress has been made in the expansion of Medical School enrollments, in research and community services, but during the current year I hope we can take additional steps to strengthen Medical Education. To this end, I have again asked the Congress to enact pending legislation to provide Federal assistance for the construction of medical teaching facilities.

Our people are well aware of the role of modern medicine in this national health structure, and I know they will support, by private and public means, the continued growth of Medical Education in this country.

Dwight D. Eisenhower

PUBLIC RELATIONS

COMMITTEE ON PUBLIC RELATIONS

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Connecticut Takes Eleventh Place in National AMEF Campaign

Connecticut achieved eleventh place in the 1957 national campaign for the medical schools sponsored by the American Medical Education Foundation. The campaign raised $15,372 from 623 contributors and the Woman's Auxiliary to the State Medical Society, which contributed $2,021 of the total amount.

First place in the national campaign was taken by Illinois physicians who contributed $199,117 through an assessment program for all of its 9,219 members. Second place was taken by California, also through assessments, $165,105 from 14,685 members. Other leading States ranked in the following order: Pennsylvania, $64,764—2,066 contributors; New York, $42,501—3,013 contributors; Minnesota, $36,846—1,604 contributors; Ohio $33,142—717 contributors; Texas, $29,717—1,209 contributors; Colorado, $23,997—832 contributors; Indiana, $19,628—667 contributors; and New Jersey, $17,348—158 contributors.

New AMA Placement Aid for Physicians

"Look Before You Leap" is the sage advice proferred in a new AMA publication for physicians seeking locations for practice. The leaflet is being produced by the Physicians Placement Service of the association and will be available through the Placement Service at the State Medical Society in New Haven.

Announcement of the new publication mentioned that many physicians are unaware of the placement services operated for them through national and state medical associations. It is hoped that the new leaflet will advance information about the services and it will be widely distributed among medical schools and hospitals as well as medical associations.

Queries and Notes Become Questions and Answers

The "Queries and Minor Notes" section of the *Journal of the American Medical Association* will give way to a new section "Questions and Answers", the original caption of the service when it first appeared in 1899.

The announcement said that questions are directed to this service section of the *Journal* at a rate of 2400 annually. Each query receives a personal reply and answers are prepared by consultants recognized as competent authorities in their respective medical fields. If the question and answer appears to be of interest to other physicians, it is published in the *Journal* and approximately 900 of these items are used each year.

Films Shown Before Community Audiences

Two popular films concerning the practice of medicine were shown before nine community employee and school audiences during the past few weeks.

The films, "Your Doctor" and "Even for One", were viewed in East Hartford, Thomaston, Middletown, Greenwich, Norwich, West Hartford, Bristol, Mystic, and New Haven. Requests for the films may be directed to the State Medical Society and booking dates should be at least a month in advance of the meeting. The films are available without charge other than postage.

Britain to Boost Health Charges Again

Britain's chancellor of the exchequer announced recently that contributions to the National Health Service by those using it and by employers would be boosted again in July. The chancellor told the House of Commons that the whole structure of the social services would be imperiled unless their cost to the treasury was kept in bounds. The chancellor estimated the cost of the health service during the coming fiscal year at $2,072,000,000.

FROM OUR EXCHANGES

Bruton and Jocz report a study of myocardial infarction in 107 industrial workers of the Chrysler Corporation. *(Industrial Med. & Surg.* 26:12 Dec. 1957). This particular company over a period of years has provided reinstatement and selective job replacement for employees surviving an attack of myocardial infarction. The period covered in the study included the patients applying for reinstatement in the years 1951-1952-1953. This selection resulted in a period of three to six years of observation in each case. At the end of this period of observation it was found of the 100 employees who were reinstated, 73 were alive and 27 were dead. Of the 73 living patients, 56 were still employed at the time the study was made, 13 had reached the retirement age of 65 and were no longer working, and four had become totally disabled, one because of a neoplasm.

Certain facts came to light in this study. The earlier the age at which the attack occurred, the better the prognosis. Weight seemed to have little bearing on the outcome. Increase in heart size was a poor prognostic factor. Hypertension alone was not a significant prognostic factor. X-ray evidence of calcification of the aorta, blood urea nitrogen determinations, and blood cholesterol levels were of little if any value. History or evidence of congestive heart failure during convalescence from myocardial infarction had definite effect on the prognosis. Electrocardiographic findings at the time of reinstatement gave surprisingly little help in predicting the outcome.

* * * *

The British are strong for domiciliary midwifery and maybe rightly so since their hospitals tend to be overcrowded and the obstetrical patient sent to a hospital usually is denied the services of her own physician. Kennedy discusses "Domiciliary Midwifery" in the *British Medical Journal* for November 23, 1957 (5055). There must be a high degree of safety, the author admits, and he believes that this can be achieved by adopting a satisfactory system of antenatal care combined with a strict selection of cases suitable for delivery in the home. His arguments for domiciliary midwifery are old cliches and probably will sound a bit funny to young obstetricians in America who never delivered a patient in her home. Here they are: "The event is more likely to be regarded by the expectant mother as a natural occurrence; she is less apprehensive and labors more easily. She enjoys more personal attention from all concerned and later shares her newfound happiness in privacy with her family."

Abnormal cases arising during the antenatal period are spotted. Repeat hemoglobin and vaginal examinations are done at the 36th week. Many of the lesser abnormalities noted in the past history are accepted for home delivery. Of 117 consecutive cases reported by this author, 94 were delivered at home and 23 in the hospital. There were no maternal deaths and for fetal loss there were two abortions and one anencephalic twin.

All patients with multiple pregnancy are referred to the hospital as soon as diagnosed. Antepartum hemorrhage is also considered a hospital case. Four of the 94 patients delivered at home developed complications (one fetal distress, one uterine inertia, and two postpartum hemorrhage). Operative procedures are avoided in the home. Postpartum hemorrhage is the great enemy particularly in home deliveries.

This article is a matter of academic interest only to us who deliver all our patients in the hospital. There still exist sections of the United States, however, where home deliveries are frequent and where a high degree of safety is not always found.

* * * *

The Research Committee of the Tuberculosis Society of Scotland has reported on its first 110 cases of pulmonary tuberculosis treated with prednisolone over a period of six months *(Brit. Med. J.,* 5054, Nov. 6, 1957). Certain criteria were established for admission to the trial and the patients were allocated to one of three groups: acute, chronic, and chronic disease with acute spread. In each group patients were required to remain on bed rest for three months and to remain in the hospital for six months. Twenty cases were withdrawn from the trial for various reasons. Forty-six patients were treated with chemotherapy alone and 44 with identical chemotherapy plus prednisolone.

The results of this trial were as follows:

(1) Clinical improvement was found to be more rapid, especially in those acutely ill, in those treated by prednisolone, and there was a more rapid fall in the erythrocyte sedimentation rate in this group. (2) Radiological improvement was significantly hastened by prednisolone over a six months period, most of the significant difference occurring in the first two months. Cavity closure and sputum conversion were slightly hastened by prednisolone, but not to a significant degree. (3) No patients receiving prednisolone showed any significant evidence of deterioration, though a temporary "rebound" phenomenon was observed radiologically in one sixth of cases. No serious side effects were recorded.

* * * *

A comprehensive review of medical literature and 371 case studies by Feinblatt *et al* ("A comparison of monoureide and diureide sedatives with respect to drug habituation, untoward effects and mortality rates," *J. Nerv. & Ment. Dis.* 125:335, April-June, 1957) showed that two monoureide derivatives of carbromal, namely acetylcarbromal and bromisovalum, are not habit forming whether used singly or in combination. Sedayson (a combination of acetylcarbromal 150 mg. and bromisovalum 100 mg.) and also acetylcarbromal 300 mg. and bromisovalum 200 mg. tablets, when used in full dosage over long periods of time, were negative as to the criteria of drug habituation: namely, pleasurable sensations, tolerance, psychological craving and withdrawal symptoms. Daily dosages of 6-8 Sedayson tablets, acetylcarbromal 1.8—2.4 Gm. or bromisovalum 1.2—1.6 Gm. were given. All patients were observed closely during treatment and for an adequate period of weeks after medication was discontinued. Because of a chemical relationship, the monoureides (carbromal, acetylcarbromal and bromisovalum) have been classified mistakenly as habit forming. However, one cannot predict the physiological action of a drug with any degree of certainty from its chemical structure. Due to the fact that the monoureide sedatives are not habit forming, have no side effects, no hangover and no contraindications, their use in combination is much preferable for continued use as a sedative or somnifacient to the dangerous and habit forming barbiturates.

Science contains many of the most thought provoking articles of any journal which comes across this editor's desk. In the issue of November 1, 1957 (126:3279) Luck discusses "Man Against His Environment: the Next Hundred Years." Any one interested in the problems of increasing world population would do well to read it. In the opening paragraph the reader is told that "to judge from the trends of the past 25 years, a world population of 9,000 million and a United States population of 600 million in the year 2050 are almost inevitable."

Many facets of this population trend are discussed. Some of the remedies are of interest. Abortion at the request of the prospective mother is to be permitted, nay, even encouraged in some instances. Increased education in contraception is called for. It is hoped that out of research may come a contraceptive "pill." Reduction of subsidies, family allowances, and direct benefits to parents of children by governments is advocated. Tax exemptions for children parents do not have might be considered instead of for each child they do have. The author even hopes for the day when governments will be able to work together on the problem of sharing the material resources of the world for peaceful purposes and in developing an acceptable program of world population control. The adaptations necessary in the next 100 years will be emotional and moral as well as in material things.

* * * *

A recent issue of *Lancet* contains an article by Cohen *et al,* three British Medical students who spent the past summer working in three of our A 1 medical schools. Their conclusions are that American medical students enjoy the advantages of better incentives to work and greater security than British medical students, that the American medical student has a greater degree of responsibility toward his patient than does the British medical student, and that the American student works much harder and because he enters medical school at a more advanced age is more mature. The British students found a very striking difference in the attitude toward research. In England scientific research is considered irrelevant to the task of passing the final examination; in the United States medical students are encouraged to engage in research and thus develop scientific understanding and thought as well as an appreciation of research methods.

OBITUARIES

Joseph Piasecki, M.D.
1882 - 1957

Joseph Piasecki died November 7, 1957 at the Norwalk Hospital after a lengthy illness. During this illness he exhibited the courage, fortitude and strength that was characteristic of "Joe", as he was affectionately known by his many friends and colleagues.

Dr. Piasecki was born in New York City. At an early age he moved to Plymouth, Pennsylvania, where he received his education. He graduated in medicine in the year 1912 from the Baltimore Medical College. He then spent a year in internship in New York City, following which he opened an office for the practice of general medicine in Hartford, Connecticut.

Shortly after he established himself in practice, he met and married Alice Chagnon to whom he was deeply devoted throughout their many years of happy married life. She is his sole survivor.

In 1934, because of a progressive leg deformity and increase in lameness, which resulted from a serious sleighing accident in his boyhood, Dr. Piasecki decided to specialize in E.E.N. & T. After spending an intense year of study at the Manhattan Eye & Ear Hospital and at the New York Polyclinic Hospital, in 1935 he opened an office in Norwalk for the practice of this specialty. With his pleasing manner and personality he immediately gained a large circle of patients and friends.

Joe was a kindly and friendly man who loved people and was loyal to his friends. He was intensely patriotic, giving of himself to all patriotic causes. His greatest disappointment in life was his inability to join the military forces in either World War I or II. However, he spent thousands of hours in doing examinations for the Draft Boards. This to some extent compensated for what he could not do because of his physical ailment.

Robert Louis Stevenson must surely have thought of "Joe" when he wrote:

> "There are men and classes of men who stand above the common herd; the soldier, the sailor and the shepherd not infrequently; the artist rarely; rarer still the clergyman; the physician almost as a rule. He is the flower of our civilization."

We deeply lament his passing. However, we who knew him rejoice in the fact that we were privileged to enjoy his friendship and will ever cherish him in our Book of Memories.

Allen M. Margold, M.D.

David P. Smith, M.D.
1889 - 1958

The death on February 1, 1958 of Dr. David P. Smith marked the second occasion during the past year of loss to Meriden of one of its best known elder practitioners. Dr. Smith was the son of Dr. Edward Wier Smith, himself a distinguished physician and surgeon. He is survived by two sons, Dr. Edward R. Smith of Meriden, also a surgeon, and Dr. David L. Smith of West Acton, Massachusetts, a pediatrician. Also surviving are a sister, Mrs. Marion Smith Bidwell of Northampton, Massachusetts, a daughter, Mrs. John Currie of Cornwall, Connecticut and ten grandchildren.

Dr. Smith

Dr. Smith was born May 7, 1889 in this city, attended local public schools and was graduated from the Meriden High School, Class of 1906. In 1910 he graduated from Yale with a degree of A.B. and two years later received an M.D. from the Yale Medical School. He began his practice here the same year.

In 1917 he went overseas with the 102nd Field Hospital serving with distinction with the famous Yankee Division during World War I as a lieutenant. In 1923 he was named a Fellow of the American College of Surgeons.

Dr. Smith decided to specialize in surgery in 1927 and studied under the late Dr. William F. Verdi of New Haven. For some time he practiced with his father in Meriden. Dr. Smith joined with Dr. Louis A. Pierson and the third generation of Smiths in the medical profession, his son, Dr. Edward R. Smith, in opening offices at a building he constructed at 199 West Main Street in 1949.

For some years Dr. Smith served as chief of surgery on the staff of the Meriden Hospital. He was a past president of the Meriden Medical Society.

In 1948 Dr. Smith took the leadership in a campaign to establish a Memorial Hospital for veterans of World War II. A small amount of money was raised by public subscription but it was not until 1952 that the Court of Common Council voted the money necessary to erect the hospital as its official war memorial.

Dr. Smith was president of the Memorial Hospital Association during the campaign and after the hospital was organized was elected president and chief of staff.

Last December after suffering a heart attack, Dr. Smith resigned as chief of the medical staff at the hospital. He continued as chief of surgery.

Dr. Smith had many interests. Music was one of them. He played the violin all his life. His original teacher was Professor Worth. He found relaxation and aesthetic satisfaction in playing, and he enjoyed the companionship of other amateur musicians. For many years he played second violin in the Meriden Symphony Orchestra as well as in the Geraniums, the informal group of musicians which has met for many years at the home of Dr. and Mrs. Arthur A. Tower, there to play good music and enjoy each other's company.

His violin, which he bought for $6,000 some years ago, was a genuine Stradivarius. It brought him much pleasure during his lifetime. He had favorites among composers. He liked the old pieces, and after the formal rehearsals broke up he would often stay on and play for his own enjoyment and that of a few friends. He had memorized some pieces, and he could go lickety-split through them, receiving a great pleasure in the accomplishment.

Another of his interests was in the field of mechanical inventions. He invented an entirely new type of surgical retractor which was held in place by being fixed to the operating room table. A variety of retracting blades could be attached to the ring which was suspended on two steel arms just over the level of the patient's skin. This ingenious device was actually the first real innovation in retractors since the self-retaining retractor was developed. It has been sold to many surgeons around the world. A very clever mechanical needleholder never quite satisfied him and he never brought it into production.

Dr. Smith was very much interested in languages. At one time or another he studied and achieved considerable mastery of French, German, Polish and Spanish. His knowledge of the latter was helpful to the hospital after the war when we began to receive many Spanish-speaking interns who knew very little English.

He was the first commander of Meriden Post 45 of the American Legion and remained the perpetual toastmaster at its annual dinners. He had a seemingly inexhaustible repertoire of jokes and stories which he would relate in a most entertaining fashion. He was also that rare individual who enjoyed everyone else's jokes and would also lead the appreciative laughter. It is hard to imagine anyone who derived more pleasure from just being with people.

Although his health had failed in the past year, he continued active in practice until late in 1957 when a severe coronary attack brought him into the Memorial Hospital. He recovered slowly and was at home when a final coronary occlusion occurred during the night. His good humor and friendliness will be missed by all.

Allan J. Ryan, M.D.

Joseph Daniel Russo, M.D.

1893 - 1957

On December 26, 1957 death occurred suddenly to Dr. Joseph D. Russo, the result of acute coronary thrombosis.

Born in New Haven, Connecticut, April 24, 1893, the son of Philip and Josephine Russo, he received his early education in the grammar schools and graduated from New Haven High School in the class of 1909, following which he entered the Sheffield Scientific School and graduated in 1912. In 1916 he received his M.D. degree from Yale Medical School where his high scholastic standing was evidenced by his election to Sigma Psi.

After interning at New Haven Hospital, Dr. Russo then came to the Hospital of St. Raphael, serving as intern assistant to the late Dr. William Verdi. The first World War interrupted his career at this time and he enlisted in the Armed Services, serving as Flight Surgeon with the U.S.A. Air Force. Following his return from service in 1919 he started private practice in New Haven, and with his keen insight and his natural ability soon built up an enviable reputation as a surgeon and diagnostician.

In 1931 Joseph Russo married Elizabeth Lucille O'Brien of New Haven who survives him.

His congenial personality, and his untiring efforts in the pursuit of his chosen profession brought him recognition by his colleagues in his election to the presidency of the staff of the Hospital of St. Raphael. He was a Fellow of the American College of Surgeons, a Fellow of the International College of Surgeons, and a Vice Regent in the latter organization at the time of his death. A member of the New Haven Medical Society, the New Haven County Medical Association, the Connecticut State Medical Society, and a Fellow of the American Medical Association, Dr. Russo associated himself closely with the activities of these organizations. A constant reader of medical and surgical publications, he was ever alert to the newer concepts of medicine and surgery.

In the forty years in the practice of his profession Joseph Russo endeared himself, not only to his colleagues, but to the countless number of patients that merited him a large and extensive practice. His loss will be keenly felt.

We at the Hospital of St. Raphael who were closely associated with him regarded him as an outstanding example of one who was never too tired or too busy to advise, help and train the younger members of the medical and nursing profession. For thirty-eight years he acted as assistant and attending surgeon on the hospital staff.

His congenial personality, his work, and his accomplishments are best summed up in the words of Stephen Grellet's "Meditation":

> "I expect to pass through this world but once. Any good therefore that I can do, or any kindness that I can show to any fellow creature, let me do it now. Let me not defer or neglect it, for I shall not pass this way again."

James A. Gettings, M.D.

WOMAN'S AUXILIARY

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NATIONAL SAFETY MEETING

Mrs. Paul W. Tisher, president, and Mrs. Charles M. Gratz, president-elect, attended the meeting of the Presidents' Committee for Traffic Safety (Eastern Region) which was held in Atlantic City, New Jersey, March 11 and 12, 1958.

ANNUAL MEETING
of
WOMAN'S AUXILIARY TO THE CONNECTICUT STATE MEDICAL SOCIETY

Stratfield Hotel, Bridgeport
Wednesday, April 30, 1958
Save the date

NEW TODAY'S HEALTH CHAIRMAN

Mrs. Morton Arnold, Windham, has been appointed *Today's Health* chairman to replace Mrs. Edward Ottenheimer who resigned.

ANNUAL CONVENTION
SAN FRANCISCO

The Thirty-Fifth Annual Convention of the Woman's Auxiliary to the A.M.A. will be held in San Francisco, California, June 23-27, 1958, with headquarters at the Hotel Fairmont. Mrs. Matthew N. Hosner and Mrs. Samuel R. Sherman of San Francisco are chairmen of the committee on arrangements.

Registration will open Sunday, June 22 and continue through Thursday.

Monday, June 23—Round table and Panel.
Discussions—Morning and early afternoon.
Later in afternoon—Tea honoring National President and President-Elect.

Tuesday, June 24—General meeting and
Luncheon in honor of National Past Presidents.
(Guest speaker to be announced)

Wednesday, June 25—General meeting and
Luncheon in honor of National President and President-Elect. Dr. David Allman, president of American Medical Association, guest speaker.
Following Luncheon, Round Table discussions.

Thursday, June 26 — General meeting (until noon)
Meeting of Board of Directors—1 o'clock.

Friday, June 27—Postconvention Workshop of state presidents, presidents-elect, and national committee chairmen. Members invited.

HOTEL RESERVATIONS should be sent to the A.M.A Housing Bureau, Room 300, 61 Grove Street, San Francisco 2, California, and on the form provided for this purpose in the *Journal of the American Medical Association,* January 4 issue, page 14. Please note a check for $10.00 per room should accompany all reservations. Because of the difficult housing situation in San Francisco, it is suggested that reservations be made as soon as possible. And please mention the Woman's Auxiliary when you make your request.

A most cordial invitation is extended to the members of the Auxiliaries to attend the 35th Annual Convention and to take part in the activities of the meeting. You are particularly urged to attend the Round Table discussions where Auxiliary chairmen will discuss timely and important Auxiliary topics.

If you plan to attend the Convention, please notify your County President. Help Connecticut have her quota of delegates and alternates in San Francisco.

AROUND THE STATE

Federal Grant for Psychiatric Jail Service

The State Mental Health Department has received a federal grant of almost $40,000 to establish an unprecedented service for late adolescents and young adults in the New Haven County jail. The service will focus on the 16 to 25 year olds of both sexes of which about 800 are sent to the jail each year. The grant came from the National Institute of Mental Health of the U. S. Public Health Service. Acting Commissioner of Mental Health, Elias J. Marsh, is named the principal investigator in the project. It is anticipated that there will be connected with it important research aspects.

Connecticut Regional Blood Program

The decision of the Medical Advisory Committee approximately six years ago that blood should be stored in the hospitals themselves rather than the Regional Blood Center in Hartford has proven to be an effective and conservative step in the maximum utilization of banked blood. This step was not taken without misgivings, as it depended on the willing cooperation of hospitals, physicians and technicians, all individualistic groups. That this cooperation has been forthcoming is a tribute to our well knit and organized State.

Each hospital is supplied each week by the Center up to its blood bank level. This means, in effect, that there are at all times approximately 2,600 pints of blood on the shelves of forty hospitals in this State. Out of 80,000 pints distributed to our hospitals on an annual basis, approximately 6,000 pints reach their final destination in a recipient in a hospital other than that to which they were originally shipped. This high emergency transference of blood is largely carried out through the motor corps service of the Red Cross.

As this system has developed, the practice for a hospital in need of blood of a specific type is: firstly, to call the neighboring hospitals; secondly, to call the Center if no blood of a specific type is locally available; and thirdly, if both these fail, to call the Red Cross Chapter for walk-in donors by types. This systematic method of operating has proved extremely workable and has greatly reduced the wastage of banked blood through outdating.

DONORS	FEB. 1958	7/1/57 THRU 2/28/58
Donors accepted	7,010	57,678
Donors rejected	557	5,212
Donors registered	7,567	62,890
BLOOD ISSUED TO HOSPITALS		
To Connecticut Hospitals from Center	5,341	49,396
Blood collected by hospitals	899	5,482
To fractionation stock pile	180	1,512
To N.I.H.	2	12
To out of state hospitals	96	610
	6,518	57,012
PROCESSING AT CENTER		
Processed into fresh frozen plasma	71	602
Processed into packed cells	4	15
Processed into liquid plasma	117	4,628
	525	5,245
Discarded—unfit and broken	31	262
Grand Total—Distribution of blood	7,074	62,519
Blood returned to center for processing into plasma and fractions	426	4,568
BLOOD DERIVATIVES ISSUED TO HOSPITALS		
Irradiated plasma (300 cc)	25	300
Fresh frozen plasma (125 cc)	190	1,199
Serum albumin (100 cc)	79	752
Immune serum globulin (2 cc)	212	272
Packed red cells	4	15
Fibrinogen	0	0

Psychiatric Services in General Hospitals

"Connecticut has a unique opportunity to develop a system of psychiatric services in general hospitals which can lead the way to a nationwide move to develop new and realistic ways of treating the mentally ill patient promptly in his own community." "The days of indiscriminate admission of psychiatric patients to already badly crowded state hospitals, and a further enlargement of the state hospital system may soon be over." These and other comments appear in an 85 page report on "Psychiatric Services in General Hospitals", released in February by the Connecticut Association

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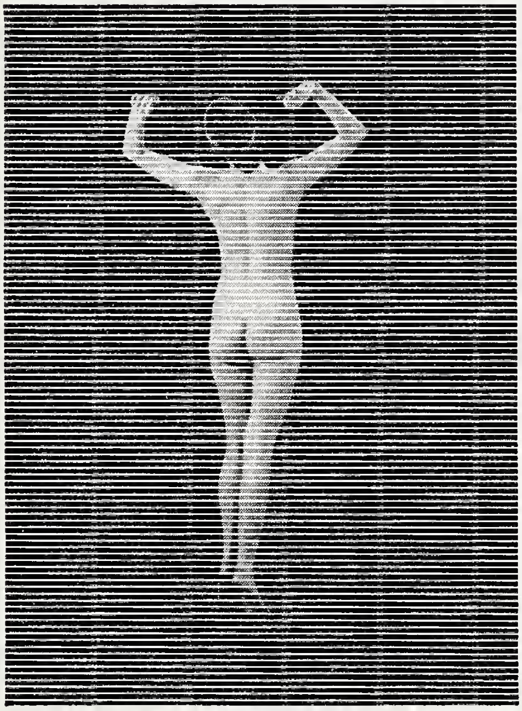

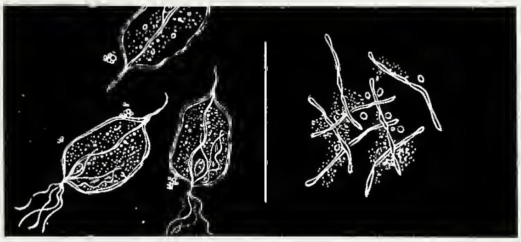

Vaginal discharge is one of the most common and most troublesome complaints met in practice. Trichomoniasis and monilial vaginitis, by far the most common causes of leukorrhea, are often the most difficult to control. Unless the normal acid secretions are restored and the protective Döderlein bacilli return, the infection usually persists.

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Intravaginal Applicator for Improved Treatment of Vaginitis

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A Floraquin applicator is supplied with each box of 50 tablets. G. D. Searle & Co., Chicago 80, Illinois. Research in the Service of Medicine.

SEARLE

for Mental Health, Inc. The study, made under a grant from the CAMH, was conducted under the direction of the Association's Committee on Hospital Services for the Mentally Ill, of which Connecticut Hospital Association's president, Charles V. Wynne of Waterbury, was a member. The survey consultant was Warren T. Vaughan, Jr., M.D., Weston, Massachusetts.

The contents include the following sections: "Mental Illness and Community Treatment Programs"; "General Factors for Consideration in Connecticut"; "The Professional Programming of Psychiatric Services in General Hospitals"; "The Present General Hospital Situation in Connecticut".

Resident Training in Psychiatry

Accreditation for three years of residency training in psychiatry at Fairfield State Hospital places its educational facilities on the same level with Connecticut's other two large mental institutions, the Norwich State Hospital and the Connecticut State Hospital, Middletown. The approval enjoyed by all three of the institutions covers a five year program for advanced studies for physicians toward recognition as a diplomate in psychiatry and neurology.

These hospitals have also been surveyed and accredited by the Joint Commission on Accreditation of Hospitals in cooperation with the American Psychiatric Association. According to a recent survey, less than 10 per cent of state mental hospitals in the U. S. have received similar recognition.

Statewide Information on Poisons

Connecticut now has a *State Poison Information Center,* which is operated around the clock by the State Department of Health. The Center, located in new quarters on Main Street, Hartford, results from legislation passed by the 1957 General Assembly, entitled, "An Act Concerning the Establishment of a State Poison Information Center". The telephone number is *JAckson 7-6341, ext. 456.*

The public has reacted favorably to such a center, as indicated in a *Hartford Times* editorial: "The expense involved in setting up and operating such a center is small compared to the life-saving service it offers. This was one of the best works of the last session of the Legislature."

The Connecticut Advisory Committee on Foods and Drugs

Meeting of January 30, 1958

The member societies, institutions, and the State agencies were represented at this meeting as follows:

Connecticut Agricultural Experiment Station	Dr. Harry J. Fisher
Connecticut State Pharmaceutical Association	Prof. Nicholas W. Fenney
Connecticut Veterinary Medical Association	Dr. Joseph DeVita
Food and Drug Commission	Mr. Herbert Plank
State Department of Health	Dr. James C. Hart
State Pharmacy Commission	Dr. Felix Blanc
University of Connecticut	Dr. Stanley E. Wedberg
University of Connecticut School of Pharmacy	Dean Harold G. Hewitt

Super-Coronaid: Basing its opinion on the evidence and advice of experts submitted in the written reports of Dr. Dwyer and Dr. Geiger, the Committee voted disapproval of the advertising being made for *Super-Coronaid.*

Wash-'n-Dri: Dr. Wedberg had been asked to look into some of the claims being made about the germicidal power of the towelettes sold under the trade name of *Wash-'n-Dri.* He presented bacteriological evidence in support of the claims made by the manufacturer. Since the Committee had not been asked to pass judgement on this product, no formal action was taken other than to receive the report for information purposes.

Royal Jelly: Dr. Fisher called the attention of the Committee, to an article entitled: "Royal Jelly: Selling the Queen Bee's Secret", appearing on page 47 of the December 14, 1957 edition of *Chemical Week.*

Based upon the written reports submitted by Dr. Giarman and Dr. Jack J. Albom, the Committee passed a motion to the effect that the ads for *Royal Jelly* are misleading, if not false.

The subcommittee submitted the following information relative to the chemical composition of *Royal Jelly* as follows:

The most important single active constituent of royal jelly probably is pantothenic acid. Pearson and Burgin *(Proc. Soc. Exp. Biol. Med.,* 48:415, 1941) found on a dry basis that royal jelly contains an average of 511 micrograms per gram, which is about 2.5 to 6 times as much pantothenic acid as

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is present in yeast or liver. Thus, royal jelly is the richest known source of pantothenic acid.

Other constituents have been studied by several investigators. Two such studies are worthy of mention. Melampy and Jones *(Proc. Soc. Exp. Biol. Med.,* 41:382) have reported the following average chemical composition:

Moisture	66. %
Ash	0.82%
Protein	12.47%
Total lipid	5.46%
Total reducing substance	12.49%
Undetermined	2.84%
Vitamin B	1 to 1.5 I.U./gm.
Vitamin A	None
Vitamin C	Little
Vitamin E	Little

The most detailed study of this material was done by Townshend and Lucas *(Biochem. J.,* 34:1155, 1940). They subdivided royal jelly into fractions:

1. Ether soluble. This consisted principally of an organic acid or (mixture). There were also small amounts of a phenolic material, beeswax, sterol, and phospholipid.
2. Water soluble and dialyzable. This was the largest fraction containing about 50 per cent sugars. Glucose and fructose account for most of the reducing material.
3. Water soluble and nondialyzable. This was protein in nature. Aspartic acid, arginine, and tyrosine were isolated.
4. Water insoluble. This consisted of proteins soluble only in alkali. It showed positive tests for tyrosine, tryptophane and arginine.

Stimavite Tastitabs: Dr. George Cowgill of Yale Medical School was asked his opinion about the claims being made for this product. The Committee accepted the conclusions in Dr. Cowgill's report:

"The conclusion that I reach, then, is that the claim on the label ' . . . containing lysine to promote proper growth' does not stand up on analysis and therefore can be challenged as being deceptive and misleading".

VETERINARY REMEDIES SOLD IN FEED STORES

Dr. Devita's report on the above subject was submitted. The Committee approved in principle the conclusions of the report. The words "for veterinary use" on labels and labeling is not good since it indicates to the general public that the veterinary profession endorses or otherwise approves of the indiscriminate distribution of dangerous drugs which are not available for human use except on prescription of a practitioner. When so labeled they are distributed by individuals who are subject to no license requirements and consequent scrutiny. The sale of such medicaments through unlicensed channels should be stopped immediately. The report recommended the formation of a formal organization to control the use of antibiotics among veterinarians.

LABELING OF HAZARDOUS SUBSTANCES

Mr. Plank reported that a survey conducted by the State Food and Drug Commission indicated over 500 items already found that would require revised labeling based upon the provisions of the Hazardous Substances Bill. It is estimated that as many as 22,000 items might eventually fall in this category. One of the chief objections to the bill as it now stands is the rating as to toxicity (none, slight, moderate, very, extremely, and super toxic). Based upon a median lethal dose a label of CAUTION might apply to the present "slight" and "moderate"; WARNING for "Very toxic"; and DANGER for "extremely toxic" and "super toxic".

Companies have been notified of proposed labeling to get their reactions before any formal action is taken.

It was reported that Shoe Fitting with X-Rays has been banned in New York.

Connecticut Joint Commission for Improvement of Care of the Patient

Meeting of Committee on Future Needs for Nurses at Hartford Hospital on February 4.

Present: Mary E. Brackett, R.N., presiding; Mrs. Norma Lundquist, R.N., CLN; Lillian B. Reilly, R.N., CSNA; Anna E. Ryle, R.N., CSNA; Florence C. Austin, R.N., CPHA; Alba A. Mastorgi, R.N., CPHA; Edgar L. Geibel, CHA; Stuart W. Knox, CHA, ex-officio

Guests: Eric W. Mood, President, CPHA; Mrs. Calista B. Salmon, Executive Secretary, CLN; Mrs. Carolyn L. Widmer, President, CSNA; Mrs. Helen Cullen, Executive Secretary, CSNA; Mrs. Irene J. Kennedy, R.N., State Department of Health; Hazel Dudley, R.N., State Department of Health; Miss Marion

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GUILDCRAFT OPTICIANS

W. Shealian, Director, NLN Division of Nursing Services, New York, New York; Miss Jessie Scott, Division of Nursing Resources, United States Public Health Service, Washington 25, D. C.

Absent: Herbert D. Lewis, M.D., CSMS; D. Dillon Reidy, M.D., CSMS; J. Forbes Rogers, M.D., CSMS

Survey of Nursing Needs and Resources in Connecticut (Preliminary). Reference was made to a survey of vacancies in Connecticut hospitals which the chairman conducted in cooperation with the Connecticut Hospital Association. Hospitals were asked to indicate the number of authorized full-time and part-time professional nursing positions and the number actually filled. The report, given at the 1957 annual meeting of the Connecticut League for Nursing on October 3, 1957, indicated that 21 per cent of the General Staff positions were unfilled. This suggests that Connecticut hospitals prefer R.N.'s for bedside nursing.

Statewide Nursing Survey. Miss Jessie Scott, Division of Nursing Resources, United State Public Health Service, Washington, offered the opinion that there is sufficient data already available about nursing in Connecticut, and that a lengthy survey is apparently not needed. The Committee was told that once certain basic data is collected and assembled, it may be sent to Washington and reviewed without charge. PHS may then keep in touch with the work by mail until the final stages of the study. Then about two weeks time with a consultant in Hartford may be necessary to put the material in final shape for a report to the Commission. The Committee chairman was asked to write Mrs. Adams for a PHS commitment to do this consultation work.

Committee Decisions. Before adjournment, the Committee agreed on the following points:

a. The purpose of the study is to assemble data regarding the future needs of nursing in Connecticut, as a basis for determining priorities for future action.

b. The NLN method for study of nursing needs in Connecticut will be used. The figures produced by Miss Sheahan will be tested from figures locally available.

c. The Committee will study the number of nurses per population, as well as the distribution of nurses in hospitals, nursing homes and public health agencies, etc.

d. The Committee will examine the preparation of nurses as needed by those who give direct care to patients; those where less supervision is available, such as public health nursing and head nursing; and, those positions which are actually on the faculty, supervisory, administrative or consultant level.

e. The Committee will gather data on the preparation of head nurses, nursing service supervisors and administrators in hospitals and doctor's offices.

f. To simplify the study, the Committee will use the NLN classification of nurses in major fields of responsibility. Group A will include professional nurses who give direct care to patients under supervision. This group should finish its education in the diploma or associate degree program.

   Group B includes professional nursing personnel who hold positions ranging from hospital head nurse and public health staff nurse, through service and education administrator. This group should have education in a baccalaureate degree program which lays the foundation for such functions and for graduate study.

   Group C includes that portion of Group B nurses who become teachers, supervisors, administrators and consultants. This group should have attained the level of education of a masters' or doctors' degree of study in a functional or clinical area, or both.

g. It is expected that the report will be in form for printing by June 1, 1958.

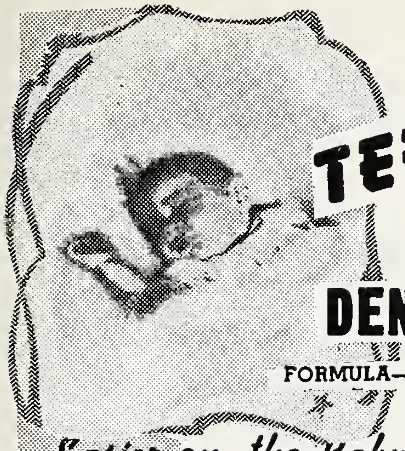
Fairfield County

Fairfield State Hospital has been approved for three years of residency training in psychiatry.

Hartford County

N. William Wawro and Edward R. Howe of Hartford are the authors of "Experience in a Community Hospital with Multivisceral Pelvic Resection for Advanced Pelvic Cancer" published in *American Journal of Obstetrics and Gynecology*, December, 1957.

The Travelers Insurance Companies has announced the promotion of three physicians in its



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medical department. Alfred F. Seibert becomes medical director of the life, accident and group division and Victor H. Young and John C. Robinson have been appointed assistant medical directors in the same division.

William H. Tripp of Hartford was a guest speaker at the meeting of the New York Obstetrical Society on January 14. Dr. Tripp in conjunction with Albert H. Aldridge of New York presented "A Review of Cesarean Operations at Woman's Hospital, 1950 to 1954.

Ernest C. Shortliffe, T. Stewart Hamilton and Mr. Edward H. Noroian are the authors of "The Emergency Room and the Changing Pattern of Medical Care" published in the *New England Journal of Medicine*, January 21, 1958.

Middlesex County

Anne C. Wollack recently opened an office in Westbrook for general practice.

Donald Arnault and Harry Frank attended the sectional meeting of the American College of Surgeons in New York early in March.

New Haven County

BUMSTEAD MEMORIAL FUND ESTABLISHED AT YALE

Creation of a John H. Bumstead Memorial Fund for purchase of publications for the Yale Medical Library was announced in March by Frederick G. Kilgour, medical librarian. The fund honors the memory of the late Dr. John H. Bumstead, prominent New Haven physician and Associate Clinical Professor of the Yale School of Medicine. Associates of the Yale Medical Library have established the fund, with many of Dr. Bumstead's former medical colleagues, friends and patients already contributing to the continuing memorial. Books and publications purchased through income of the fund will be identified by a special bookplate which is being designed.

Dr. Bumstead, who died on July 29, 1957, was the son of the late Professor H. A. Bumstead of Yale. He received his B.A. degree from Yale in 1919 and his M.D. degree from Johns Hopkins University in 1923. Except for absences during World War II, Dr. Bumstead spent most of his professional life in New Haven where he had an extensive practice.

Contributions to the Bumstead Fund, Mr. Kilgour reported, have already been received from coast to coast. "The number of contributors," he said, "is remarkable evidence of the high esteem in which Dr. Bumstead was held by those who knew him."

SCHOLAR IN MEDICAL SCIENCE APPOINTMENT GOES TO YALE MEDICAL STUDENT

Dr. Jack Wayne Love of the Yale School of Medicine has been appointed a Scholar in Medical Science by the John and Mary Markle Foundation of New York City, one of the most distinguished awards for young medical scientists in the country.

Dr. Love received his Doctor of Philosophy degree in physiology at Oxford and now expects to receive his M.D. degree from the Yale School of Medicine this June. He plans to join the Department of Physiology at Yale as an Instructor next year.

He is one of 25 outstanding young scientists in medical schools in the United States and Canada to be appointed a Markle Scholar. For each Scholar named, the Foundation has allocated $30,000 to the school at the rate of $6,000 a year for five years.

Purpose of the Markle Foundation awards is to keep outstanding young doctors on medical school faculties by giving them added financial security. This is the eleventh year of the annual awards and a doctor from the Yale School of Medicine has been picked in nine of the eleven years.

Dr. Love received his undergraduate training at the University of Illinois and entered the Yale School of Medicine in 1952. After completing the first two years of his medical course, he received a Rhodes Scholarship to study for two years at Oxford University in England and received his Doctor of Philosophy degree in Physiology in 1956. He then returned to Yale to finish his medical training here.

New London County

The Connecticut Association for Mental Health has awarded a $2,000 supporting grant to a Norwich State Hospital research team for the study of an out-patient clinic. The Norwich State Hospital Project was one of four studies, from a total of 28 research proposals submitted to the Association's

(Continued on Page 342)

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SPECIAL NOTICES

HARTFORD HOSPITAL

Saturday Morning 11 o'clock Guest Speakers
April 5 to June 7, 1958

Apr. 5 **C. Lee Buxton, m.d.**, Professor of Obstetrics and Gynecology, Yale University School of Medicine. Subjects: 10:00 a.m.: Adrenal-Ovarian Steroids in Gyn. Disorders. 11:00 a.m.: Vaginal Infections and the Epidemiology of Trichamoniasis.

Apr. 12 **Miller Fisher, m.d.**, Assistant Professor of Neurology, Harvard Medical School; Attending Neurologist, Massachusetts General Hospital. Subject: Further Experience with Anticoagulants in Cerebral Thrombosis.

Apr. 19 **Anthony D'Esopo, m.d.**, Chief of Obstetrics, Sloan Hospital for Women, New York City; Professor of Obstetrics and Gynecology, Columbia College of P & S. Subjects: 10:00 a.m. Stein-Leventhal Syndrome. 11:00 a.m. The Use of Hormones in Menstrual Irregularities.

Apr. 26 **Robert E. Cooke, m.d.**, Professor of Pediatrics, Johns Hopkins Medical School. Subject: Congenital Hypothyroidism in Children.

May 3 **Nicholas P. Christy, m.d.**, Attending Physician, Presbyterian Hospital, New York City; Instructor, Columbia College of P & S. Subject: A New Look at Cushing's Syndrome.

May 10 **Samuel Asper, m.d.**, Attending Physician, Johns Hopkins Hospital. Subject: Diagnosis and Management of Thyroid Disorders in Adults.

May 17 **E. Parker Hayden, m.d.**, Chief of Proctology, Massachusetts General Hospital. Subject: Diagnosis and Treatment of Lesions of the Anus and Rectum.

May 24 **Gilbert Dalldorf, m.d.**, Associate Medical Director, National Foundation for Infantile Paralysis, New York City. Subject: The "Cousins" of Poliomyelitis. (Dwight Griswold Memorial Lecture.)

May 31 Holiday Weekend—No Clinic.

June 7 **S. J. Thannhauser, m.d.**, Emeritus Professor of Medicine, Tufts University School of Medicine. Subject: Case Presentation.

THIRD ANNUAL NEW ENGLAND RURAL HEALTH CONFERENCE

Thursday, April 10, 1958

University of New Hampshire, Memorial Union,
Durham, New Hampshire

Sponsored by the Council of New England State Medical Societies and the Council on Rural Health, American Medical Association

Morning Program

9:00 Registration
Everyone is requested to register. There is no registration fee. Luncheon tickets will be available at the registration desk.

9:30 Welcome to Durham
Arthur W. Burnham, M.D., Lebanon
President, New Hampshire Medical Society

9:45 Why we invited you to this conference
Norman H. Gardner, M.D., East Hampton, Connecticut, Regional Director, Council on Rural Health, American Medical Association

10:00 New Trends in Care of the Crippled and Chronic Among Us
Richard J. Clark, M.D., Director, Cardiac Work Classification Unit, Massachusetts Heart Association, Winchester, Massachusetts

10:30 How to Manage A Home Though Handicapped—Film Showing
Presented by: Miss Florence Walker, Extension Home Management; Specialist, University of Connecticut, Storrs
Mrs. Marjorie S. Lord, Home Economics Consultant, Connecticut Heart Association, Hartford

11:15 Discussion Period

12:30 Luncheon

Afternoon Program

1:30 Progress in American Rural Health
Mrs. Charles W. Sewell, Member of the Advisory Committee, Council on Rural Health, American Medical Association and formerly administrative director of the Associated Women of the American Farm Bureau Federation, Otterbein, Indiana

2:15 New Horizons in Mental Health—A Panel Discussion
Mervyn H. Little, M.D., General Practitioner, Willimantic, Connecticut
John C. Chantiny, Extension Farm Life Specialist, University of Maine, Orono
Olga Little, M.D., Psychiatrist, Willimantic, Connecticut
Anna Philbrook, Director, New Hampshire Child Guidance Clinic, Durham

3:30 What Have We Learned Today?
Aubrey D. Gates, Field Director, Council on Rural Health, American Medical Association

INDUSTRIAL HEALTH CONFERENCE

Atlantic City, New Jersey, April 19-25, 1958

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tional Industrial Health Conference, to be held at Convention Hall in Atlantic City, New Jersey, April 19-25, 1958. Over 3,000 occupational health specialists, businessmen and labor leaders will hear papers on problems of growing significance to industry, workers, and the community. A total of 134 papers will be presented on such subjects as radiation, mental health in industry, air pollution, noise, medical care and in-plant health services, industrial dentistry and industrial nursing.

Advance registration forms, as well as a copy of the program, may be obtained from Edward C. Holmblad, M.D., Managing Director, Industrial Medical Association, 28 East Jackson Boulevard, Chicago 4, Illinois.

6TH ANNUAL CLINICAL MEETING OF THE AMERICAN COLLEGE OF OBSTETRICIANS AND GYNECOLOGISTS

Lost Angeles, April 21-23, 1958

The Spring Meeting of the Connecticut Trudeau Society will be held on Thursday evening, April 24, 1958, at Cedarcrest Hospital in Newington, Connecticut, at 8:00 P.M. It is planned to have three papers presented by members of the society with a five minute discussion period following each paper.

7TH SCIENTIFIC ASSEMBLY—CONNECTICUT ACADEMY OF GENERAL PRACTICE

Preparation for the 7th Scientific Assembly of the Connecticut Academy of General Practice which is to be held at the Hotel Statler, Hartford, Connecticut on October 2, 1958 have been completed to the last detail by the chairman of the program committee, Peter J. Scafarello, and his associates.

The Connecticut Academy of General Practice Symposium is one of the region's most outstanding medical sessions, designed especially for the family physician.

More than 500 physicians from the New England States will convene in Hartford to hear some of the nation's leading medical authorities.

One of the main features of the meeting will be a talk on "The First Cancer Treatment with Heart and Lung Machine." Doctors from Tulane University School of Medicine, where this treatment is now being carried out, will come to Hartford to give the Connecticut family physician complete information concerning this new treatment. Working on this project are Oscar J. McCreech, Jr., chairman of the Department of Surgery, Robert F. Ryan, Edward Krementz, James N. Winblad, William Chamblee and Howard Creek.

Life Policyholder Death Rate Increased in 1957

For the first time in several years the death rate among life insurance policyholders will show a slight increase in 1957, according to the Institute of Life Insurance. The cardiovascular-renal diseases continue to take the major toll of life and are largely responsible for the higher death rate experienced during the year.

The epidemic of Asiatic influenza which became a cause for national concern about August of last year, has also been a contributing factor in the higher mortality. Although antibiotics have aided in thwarting the serious after-effects of influenza, the epidemic, involving a new type of virus, was widespread and responsible for more deaths from respiratory diseases than in a number of years; said the Institute. Also, a significant number of deaths from heart conditions, especially among older persons, can be attributed to the effect of the influenza virus.

The number of cancer deaths will show a small rise in 1957. Although strides have been made in the early detection and treatment of this disease, it is still responsible for about one-fifth of all deaths.

"The very fact that people are now living longer accounts for the high mortality resulting from diseases of the heart, circulatory system and the malignancies," observed Dr. Louis I. Dublin, renowned statistician and consultant on health and welfare for the Institute. "Deaths from the infectious diseases have been steadily decreasing as medical science has found the controls for such former killers as tuberculosis, pneumonia and polio."

Around the State

(Continued from Page 338)

research committee, which was recommended for financial support. The total amount awarded by the Association will be $9,440. Warren W. Burns, clinical director at Norwich State Hospital, will be head of the research group.

The March meeting of the New London County Medical Association was held March 6 at the Charles Pfizer & Co. Groton, with dinner at 6 p.m. Speaker for the evening was Benjamin Whitcomb, attending neurosurgeon, Hartford Hospital, who spoke on the subject "The Neurological Examination". The 170th annual meeting of the New London County Medical Association will be held Thursday, April 3 at the Mohican Hotel, New London, meeting at 5 p.m., dinner 7 p.m. There will be no speaker.

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NEW BOOKS IN REVIEW

SURGERY IN WORLD WAR II. Ophthalmology and Otolaryngology. Col. John Boyd Coates, Jr., M.C., Editor-in-Chief. Office of the Surgeon General, Department of the Army, Washington, D. C., 1957. 605 pp. $5.00.

Reviewed by Hugh M. Moss

The history of the Army Medical Department in World War II is divided into two series, one being part of the general history of the war, the other being the professional series of which this volume is a part. Much experience in ophthalmology and otolaryngology, both administrative and clinical, was filtered and organized into a most readable form.

The studies of special interest in ophthalmology include the intensive investigation of ocular involvement in scrub typhus (451 cases), and the study of nutritional amblyopia (beri-beri) in thirty-three American prisoners of the Japanese. Of those who survived severe malnutrition for almost three years, peripheral neuritis and optic atrophy were the only irreversible effects. Experience with traumatic cases in World War II was without precedent, and intraocular foreign bodies were especially challenging. Detailed descriptions of techniques for localization and for removal of intraocular foreign bodies are described. It is remarkable that there was a very low incidence of sympathetic ophthalmia, about one per cent of all penetrating ocular injuries, and that it was entirely avoidable if indicated enucleation was performed within three weeks of injury. Development of the acrylic eye was an advancement which arose from the curtailment of German glass, and the overwhelming demand by United States troops for an adequate prosthesis. The fact that World War II experience is now nearly fifteen years old is made apparent by the extensive use of fever therapy and the absence of steroids in discussions of treatment. Antibiotics included only sulfas and penicillin, with occasional use of tyrothricin. The chapter on visual disturbance associated with head injuries supports the opening statement that "few significant contributions to the subject (cortical representation of the retina) have been made except during time of war."

The section devoted to otolaryngology is more concise in having single chapters to summarize administrative and clinical experiences. In the ophthalmology section these are broken down into separate chapters for each theater of war, which is somewhat repetitious but does provide differences of opinion. For example, contrary views are presented on the preferred surgical approach, anterior or posterior, to foreign bodies in the ocular vitreous.

Experience with rupture of the tympanic membrane from blast taught that a hands-off policy of treatment was best, since healing occurred most quickly when the external canal was simply cleansed and plugged with sterile cotton. On the other hand, meticulous debridement of sinus wounds in addition to antibiotics was essential if later infection was to be avoided. Hearing impairment was detectable by audiometry in seventy percent of combat personnel and thirty percent of noncombat personnel in a large series. Even without preinduction controls, the study suggests a considerable incidence of auditory damage and an unmet need for adequate protective devices. About fifteen percent of the cases of deafness in the Army were diagnosed as psychogenic. Out-and-out malingerer's were detected by clever use of Red Cross personnel in what was called the "real life" test. Combat acoustic trauma *per se* resulted in a characteristic audiometric tonal dip maximum at 4096 cycles. This knowledge proved valuable for diagnosis and disposition though there is yet no adequate explanation for the consistency. The age of nuclear power and space travel may produce new varieties of auditory impairment, both organic and functional. If so, the military experience from World War II has laid some of the investigative ground work.

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Perhaps the most commendable achievement of these two sections of the Medical Department was the development of well integrated and highly effective rehabilitation programs for the blind and for the deaf. The story is told of the evolution of Army policy on the blinded soldier, from that of prompt disability discharge to the establishment of a full-scale adjustment training center for blinded service personnel at the Old Farm's Convalescent Hospital in Avon, Connecticut. There was even more to be done in organizing rehabilitation for the deaf, which reached a high point of development by the end of the war. A notable feature of the aural rehabilitation program was the use of narcosynthesis in cases of psychogenic deafness.

The multiple purposes of a war history—to entertain those who experienced it, to enligthen those who did not, and to prepare those who may have to face it again—are well served by this volume.

DEAFNESS, MUTISM AND MENTAL DEFICIENCY IN CHILDREN. By Louis Minski, M.D., F.R.C.P., D.P.M. New York, Philosophical Library, Incorporated. 1957. 82 pp. $3.75.

Review by ARNE WELHAVEN

Dr. Minski has written a remarkably brief and easily read monograph about an important problem—the differential diagnosis of the child who has never spoken, appears to be deaf, is difficult and uncooperative.

The book is the result of three and a half years of work, study, and treatment of children presenting this kind of problem.

Dr. Minski is a psychiatrist who describes the combined approach of a well coordinated team of ear, nose and throat doctors, psychiatrists, psychologists, qualified teachers of the deaf, and nursing personnel trained in handling emotionally disturbed children.

The different methods applied, ranging from hearing tests and psychological tests through psychiatric and educational approaches, do not represent anything new when examined separately. It is the combination of all these which is unique and well worth studying by everybody concerned with the diagnosis and treatment of disturbed children. It is this integration which accounts for the many remarkable results described in his case studies.

In the first chapter, "General Aspects of the Problem," and the last chapter, "Discussion of the Problem," Dr. Minski points to the seriousness of it in England. He states, "At the present time many of these children are cast aside without detailed examinations and assessment and spend their lives in institutions." "The problem ranges from the child who is slightly deaf, has speech but is regarded as dull and backward, to the child who is deaf, mute and difficult and also the child who is not deaf, but has no speech and is also difficult."

Dr. Minski points to the tragic fact that many of these children are potentially educable but are not properly evaluated and given necessary special training; as a result they fail to develop their potentials and may spend their lives in institutions for the mentally defective. He can give no figures but his sampling so far shows that the number of such chil-

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dren is of shocking proportion, something that also probably exists in this country.

Dr. Minski's book represents serious criticism of existing conditions but it also points out methods for improvement. It offers a challenge which can and should be met by those concerned with the diagnosis and treatment and education of such children.

MANAGEMENT OF COMPLICATIONS IN EYE SURGERY. R. M. Fasanella, Editor. *Philadelphia and London. W. B. Saunders*, 1957. 422 pp. $16.00.

Reviewed by HENRY BIRGE

Dr. Fasanella has collected papers from some of the most beloved and respected of the present day teaching ophthalmic surgeons. Without the help of Dr. Lindskog, Dr. Gimel, and Dr. Zagraninski, he could have been in many technical difficulties. His expressed philosophy of "prima non-nocere" cannot be improved. It reduces complications.

In cataract, the most common ophthalmic condition treated surgically, as described by P. Robb McDonald in that excellent Chapter 10, the idea of "the fewer the operations the better" is expressed. Such emphasis on good surgery is exemplified by many other articles in the literature.

Two many ophthalmic surgeons are willing to operate upon an eye time after time. Great emphasis should be plac edon the demand, by the patient, and by the humane and experienced surgeons, that the fewest number of operations be performed to accomplish a given result.

Any text on "complications" of eye surgery should be written by a "senior citizen." Dr. Fasanella has performed a service in gathering the comments of twenty (20) well-known surgeons.

The measure of any surgeon is how he gets out of trouble together with the results of his efforts:—"(20/20)". In eye surgery the loss of an eye is comparable to the loss of the patient's life, but the eye surgeon often has to live with failures whereas the other surgeons bury them and forget them. One critic of architectural mistakes noted that ivy flourished upon them. We eye surgeons have no such luck. Therefore, the volume edited by Dr. Fasanella should be read with interest by both young and old.

Brief mention of the control of surgical infection through antibiotics, filtered pressurized air in operating rooms, new sterilizing techniques, and constant attention to factors leading to infection must be made.

Perfection comes not without effort. Most of the surgical techniques of 1958 date back 100 years or more. Any improvement in results must be due to our better control of the major factors damaging the end results.

Little progress has been made with the surgeon. His nervous tension, often due to extraneous factors, can only be controlled superficially. Without it, to be sure, he would not care about the end result. The added result of socialized hospitals, inability to control the less important personalities in the operating room, and the present day philosophy of "do as little as you can" offer stumbling blocks to the modern ophthalmic surgeon.

Perhaps one of the most common faults of surgeons, as exhibited in this collection of essays, is that they comment on complications as though they were "acts of God." Dr. Leopold in discussing postoperative anterior chamber hemorrhage says "they are best treated by conservative measures." He could have made a point of saying that the surgeon has a responsibility for them. However, in his support we must admit that he also says that any blood dyscrasias should have been diagnosed preoperatively. But the point was not emphasized, nor the literature covered completely.

Complications can and must be prevented. Dr. Dohrmann Pischel mentions the complications of using polyethylene tubes to correct retinal detachments. But he only mentions the minor complications of the tube becoming exposed through the conjunctiva. Consider the serious complication of the tube working its way into the interior of the eye. Consider further the cases in which this operation has been done on both eyes.

Dr. Peter Kronfeld, excellent teacher that he is, discusses the subject *of "Malignant Glaucoma"* with the emphasis of italics and quotation marks but also failed to cover the literature on the subject.

The dean emeritus and most prolific of the elder ophthalmic surgeons, Edmund B. Spaeth, has summarized a valuable philosophy in the *Conclusion* of his remarks on page 169.

Dr. Shafer's theories of vitreous transplant are the answer to the eye surgeons' prayer. If they only work out, no more sweat and blood and tears will be secreted by the eye operator. When he loses vitreous (the cardinal sin) all he does is open a vial and inject some. Vitreous has always been considered a mesodermal tissue, not regenerative, but subject to atrophy with age. Dr. Shafer's theories have yet to stand the test of time and his colleagues opinions. Most surgeons believe that vitreous, when removed from specimen eyes through a syringe, is irretrievably damaged, and ends up after reinjection into the recipient eye as mere saline (or worse). This dramatic new idea is just what the eye surgeon wants, but unfortunately it is still only an ephemeral dream, not yet a medical milestone.

Rather than offer further analysis of the various essays (we have covered the important phases of eye surgery: cataract, glaucoma, retinal detachment) let the reviewer recommend the book to all critical readers. It is not a textbook, nor should the young surgeon eschew it as the answer to all his problems. It is a stimulant to those who are able to review the literature and many parts will require second reading. A surgeon's successes are built upon the mistakes of others. He is truly fortunate if his only knowledge of mistake is in others. Let the youthful surgeon take heart and also note that there are those who write and use as a bibliography only their own papers.

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New National Medical Publication Announced

A new 16 page newspaper, the *AMA News,* will soon be published for distribution every other week to approximately 200,000 physicians. The announcement was recently made by the American Medical Association. Dr. F. J. L. Blasingame, newly appointed general manager, said the paper is being planned to "bring to the attention of our members the multitude of projects and activities carried on by their associations, as well as other nonscientific news of special interest to the medical profession."

He said the first issue of the newspaper is expected to be ready for distribution at the annual AMA convention in San Francisco, June 23-27. It will be published in tabloid format and will carry news from state and county medical societies as well as from correspondents in key areas.

The new publication was discussed with physicians and persons in allied fields to ascertain the need for a news publication and the present project is the result of that survey. The publication will carry advertising, and the editorial staff will work at the Association's headquarters in Chicago.

Voluntary Prepayment Hospital Plan Out in Ontario

Ontario residents are now preparing for January 1, 1959, when a government operated prepayment plan for hospital care becomes effective. At that time, all enrolled residents and all indigents will be covered. It is estimated that the annual cost of hospitalization to be provided by the arrangement will be $210 million, one third of which will be met by the provincial government, one third by the dominion government, and the remainder raised through direct installment prepayments by Ontario residents. The plan is mandatory for all residents who are employed in groups of fifteen or more, and will be available on a voluntary basis to all others.

The Ontario Blue Cross Plan for Hospital Care, in operation since 1941, will withdraw from providing basic hospital benefits on January 1, 1959, and will confine itself to supplementing the gov-

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ernment program, which has exclusive occupancy of the basic hospital care prepayment field. Other carriers are expected to concentrate on the provision of supplementary health services, such as semiprivate and private care, medical benefits, and sickness indemnity benefits.

The nonprofit prepayment plan for hospital care was described as a symbol of voluntary health care for the community and the alternative to a government hospital program by two members of Connecticut Blue Cross, Inc., speaking before the Connecticut Chapter, American Association of Hospital Accountants on February 20, 1958, in Torrington.

Don V. Ruck and William Remington, publicity manager and enrollment representative, respectively, emphasized the community service aspects of the nonprofit prepayment plan, with special reference to the many self-employed people and retired elderly people who benefit from Connecticut Blue Cross membership. Actually, it was stated that Connecticut Blue Cross has about the same proportion of the "over 65" population in its membership as it does those from other age groups. Credit for this major achievement was given to the public spirited citizens who favor nonprofit prepayment over compulsory methods involving general tax subsidies.

Social Security

In the first five months of the 85th Congress, the lawmakers introduced more than a hundred bills designed to broaden the Social Security Program in one way or another. Such open-handed proposals invariably win acclaim, and more tangible rewards at the polls, for their sponsors. But the alarming fact is that years ahead of schedule, the growth of the Old Age & Survivors Insurance Trust Fund has come to an end. At the moment it is paying out more than it is taking in. This unexpected deficit should serve as a red flag to the Treasury, the taxpayer, and all those who are looking forward one day to receiving retirement checks of their own. However generous its motives, even a federal pension fund cannot go on incurring obligations which exceed its resources.

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M.D., Yale University Medical School, 1909

Internship: New Haven Hospital, 1909 and 1910

Staff Appointments: Attending Physician, Grace Hospital, for twenty years, until retirement age

Consulting in Internal Medicine

Grace-New Haven Community Hospital, general staff, since 1953

President, New Haven City Medical Association, 1942

President, New Haven County Medical Association, 1951

Alternate Councilor, Connecticut State Medical Society, 1952 and 1953

Councilor, Connecticut State Medical Society, 1954 and 1955

Member, Professional Policy Committee, Connecticut Medical Service, until 1958

Member, Board of Directors, Connecticut Medical Service

Member: American Medical Association
Connecticut State Medical Society
New Haven County Medical Association
New Haven (City) Medical Association

Founder Member, World Medical Association

THE PRESIDENT'S PAGE

As time passes by, each year a new president of your Society is chosen. For the year 1958-59 I was selected, and for this great honor I wish to thank my colleagues throughout the State. In assuming leadership of this great organization, the Connecticut State Medical Society, I shall try my best to preserve the traditions of the Society and enhance the programs of education, of public relations, doctor to doctor relations within the Society, and many others.

The President of a society of this nature is more or less a figurehead, as it is really the Council and Committees that establish policies and make decisions concerning problems to be presented to, and decided by, the Delegates at the annual and semiannual meetings. The Speaker of the House, who is well versed in parliamentary procedure, conducts the meetings and relieves the President of this responsibility.

It is rather unique to realize that this year your President is a general practitioner, as my predecessor, Dr. W. Bradford Walker, also is. As a general practitioner, although I do no obstetrics or surgery, I find that my life is a busy one, leaving me with little spare time. Meetings, some of which are of clinical nature and others that are not, occupy many afternoons and evenings too.

The question of third party payments is becoming an issue where sound judgment must be used. Prepaid medical care is here to stay and whether these services shall be sponsored by lay groups or physicians groups is, in my opinion, a most critical problem to the medical profession. Pending legislation in Congress, if passed, would control the medical services to the older age group, estimated at more than twelve million persons. A lay controlled health plan would make serious inroads on the private practice of medicine and disrupt the existing amiable relationship between doctor and patient, as the free choice of physician might be denied to the patient.

As your President I shall try my best to be cooperative and understanding and both honor and wisdom demand that the coveted traditions of our Society be preserved.

Walter I. Russell, M.D.

The
CONNECTICUT STATE MEDICAL JOURNAL

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MICROCOCCUS PYOGENES (STAPHYLOCOCCUS AUREUS)

Infections in Medical Personne

IRA S. GOLDENBERG, M.D. and DONALD P. SHEDD, M.D., *New Have*

GREAT attention has been focused in recent years on the problem of *Micrococcus pyogenes* infections in the hospitalized population. Clinical infection with this organism, more familiarly known as *Staphylococcus aureus,* is common and hospital admission for treatment is becoming more and more frequent. In addition, cross infection in hospitalized patients presents an ever increasing problem which may be caused by fomites such as contaminated bed clothes[1] and often by nasopharyngeal[2] or skin carriers among hospital personnel. Of particular concern is the problem of antibiotic-resistant strains of micrococcus which are becoming the predominant ones within the hospital. When encountered in a patient, the organisms are difficult to deal with and the most careful techniques of patient care are indicated. Patient-to-patient cross infection is important[3] but of critical importance also is the infection of medical personnel. We have become increasingly aware of the increase in personnel micrococcal infections, almost all of which were surely contracted during assigned duties. It is the purpose of this report to mention the experience at the Yale-New Haven Medical Center during recent years with this problem and thus to call attention to a potentially dangerous situation which may exist in any hospital today. We are not attempting a discussion of the entire problem of *Micrococcus pyogenes* infections within the hospital, but rather the very small but important aspect of such infection in medical personnel.

Many members of the hospital working population have been seen during the past 24 months for treatment of micrococcal infections. A great deal of lost time and discomfort have been associated with these infections which have ranged from pneumonia with empyema to minor skin furuncles. More important perhaps is the fact that infected medical personnel act as a source of further contamination of patients and other personnel. It is our feeling that almost all of these infections could have been prevented had there been greater awareness of the virulence of this organism.

The Authors.

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SUMMARY

Micrococcus pyogenes (Staphylococcus aureus) infections among hospital personnel are increasing. Such disease is important from the viewpoint of decreasing the effectiveness of the medical team as well as the creation of a new focus of organisms leading to further patient-personnel infection. Simple preventive measures should be taken to limit this aspect of the Micrococcus problem within the hospital environment.

SOURCE OF THE INFECTION

There are two general sources of micrococcal infection of medical personnel. First is the patient with micrococcal infection who is admitted for medical

From the Department of Surgery, Yale University, New Haven, Connecticut r surgical therapy of the infection. Skin abscesses form the largest portion of lesions in this group but pneumonia is becoming a more common disease, especially in the pediatric population. The organisms involved in these infections are usually antibiotic-sensitive.

The second source of personnel infection is the patient who acquires a micrococcal infection during hospitalization for another problem. This infection initially may have its source in fomite or personnel-patient contact. The organisms involved in these latter infections are usually antibiotic-resistant. An example of this is the patient who develops a wound infection following a clean, elective operative procedure who then infects in turn personnel caring for him.

CASE REPORTS

Three typical cases will be detailed here as representative of the entire group of personnel infections seen at our institution. In many instances the source of the infection was not clear, but in the largest number the hospital employee or physician remembered specific contact with known micrococcal infection prior to developing his own infection. In almost all cases the organism was antibiotic-resistant and resembled in this way strains typical of those found within the hospital environment.

CASE 1

Personnel: Two surgeons, nurse, physical therapist, maid
Lesions: Furuncles of arms
Contact: Burn patient

A middle aged female was admitted with extensive burns of her extremities and trunk. About four weeks after admission during which time exposure therapy had been carried out, soaking of the patient in a Hubbard tank was instituted in order to promote separation of slough, etc., prior to skin grafting. Surgical debridement was necessary and all of the personnel mentioned above had contact with the patient at the time of the daily soaking—the surgeons actually debriding, the nurse assisting in movement of the patient in and out of the tank, the therapist administering passive motion to the extremities, and the maid cleaning out the tank at the completion of therapy. Each of these persons developed furuncles of the arms (all within a week of each other) which in the cases of the two physicians necessitated surgical drainage. One of the surgeons suffered a full month of total disability as far as the practice of surgery was concerned (Fig. 1). Pure culture of *Micrococcus pyogenes* was obtained in each case. It should be noted that cultures of the patient's burned areas revealed essentially the same micrococcal sensitivity spectrum as the cultures of the personnel lesions. All of the personnel lesions cleared with antibiotic therapy.

Adequate precautions had not been taken in dealing with this patient since regular surgical gowns and gloves were worn. The gown arms became wet from time to time during the debridement procedures and this led undoubtedly to organisms reaching the skin of the personnel. Long obstetrical version gloves were worn by all personnel after the development of these infections and there were no more new lesions after this practice was adopted.

CASE 2

Personnel: Student nurse
Lesions: Finger abscesses
Contact: Patients with wound infections

A student nurse working on a surgical division where several micrococcal wound infections were being treated developed an infection of her index finger which was drained on an outpatient basis (Fig. 2). Culture revealed only *Micrococcus pyogenes* to be present. Redrainage five days later under general anesthesia was necessary because of lack of improvement. A subungual abscess also requiring drainage developed two weeks after the second operation. During this entire period appropriate antibiotic therapy was being administered according to the sensitivity studies which had been done after each surgical procedure. The organism remained

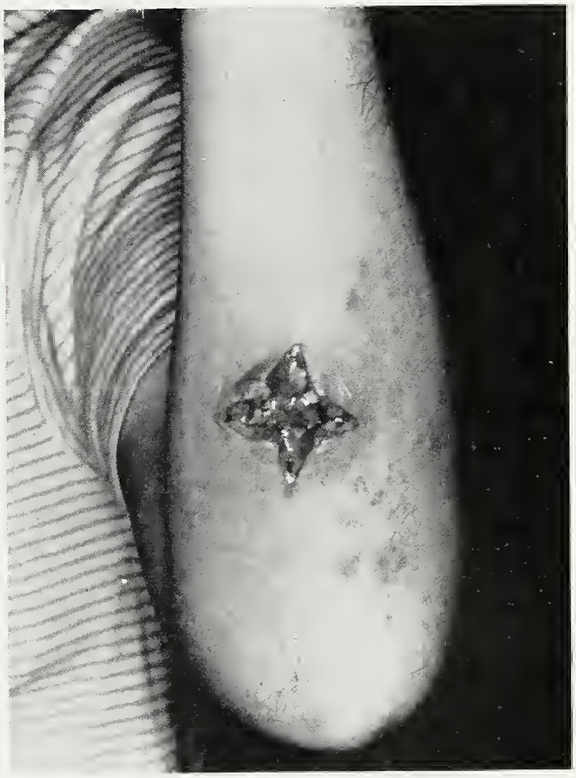

FIGURE 1

A postoperative view of the furuncle of the arm of one of the surgeons. Note the satellite furuncles present. A full month of disability resulted from this lesion.

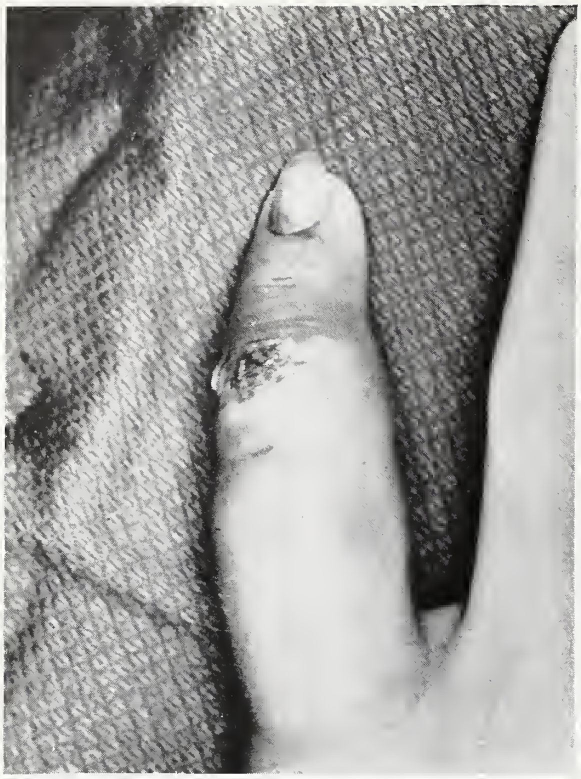

FIGURE 2
The initial abscess present in the student nurse. Three operative procedures were necessary to drain adequately the initial lesion and a subsequent subungual abscess.

sensitive to some degree to one antibiotic but became resistant to others during the course of therapy.

The student nurse was not sure of a specific contact but she had been caring for patients with known micrococcal infections who were not on any particular isolation techniques. Any one of them could have been the source of the organism which was sensitive to only a few of the antibiotics tested.

CASE 3

Personnel: Public health visiting nurse
Lesion: Collar-button abscess of the hand
Contact: Contaminated wound dressing

An example of allied hospital personnel was a public health nurse who was admitted for surgical drainage of a collar-button abscess of her hand. A pure culture of *Micrococcus pyogenes* was obtained. After three weeks of outpatient antibiotic therapy the patient was discharged.

The probable source of this infection was a patient who had had a wound infection while in the hospital and who had been discharged with a granulating wound. Dressings were changed daily by the public health nurse. The organism was a resistant strain resembling those seen most commonly in the hospital. Gloves had been worn during the dressing changes, but contact with the ungloved hand probably occurred during disposition of the dirty dressings. Although this infection was acquired by the nurse outside of the hospital, it noneth less must be considered as a hospital contact because of th source.

COMMENT

Micrococcal infections in any person are unplea ant, but when key medical personnel contract suc a disease the consequences can be far reaching. Ac quisition of micrococcal infections by hospital per sonnel certainly can be classed as almost alway preventable. Lack of awareness of the potentia of *Micrococcus pyogenes* probably accounts for mos of the personnel cases we have seen. Isolation tech niques have not been followed generally at this hos pital for micrococcal infections except in the mor extensive problems such as pneumonia. A chang is indicated in the attitude of all concerned in re gard to the care of micrococcal infected patients Even the minor infections which have been surgi cally drained are important in so far as cross con tamination of other patients and personnel is con cerned. More adequate isolation techniques should be employed. Recently we have isolated patient with even minor infections who have been admitted to the General Surgical Service in order to mini mize such cross contamination. A nurse to assis with dressing changes on the inpatient should be mandatory to aid in avoiding equipment contam ination. It is also most important that personne with micrococcal infections be removed from pa tient and personnel contact.

As has been emphasized by others[4], fomites form one of the most potent sources of infection within the hospital. Bed clothing, especially blankets, is probably the worst offender. Unfortunately wool blankets cannot be routinely sterilized after each patient's use without altering the blankets' physical properties. Reuse of such items certainly can contribute to the persistence of virulent organisms capable of initiating new infections. Reduction of organism contamination of linen and blankets may be accomplished by use of quaternary ammonium sulfate-active germicides during laundering procedures.[5]

Indiscriminate use of prophylactic antibiotics may play an important role also in that resistant strains of *Micrococcus pyogenes* can develop easily. These organisms are then even more difficult to deal with once clinical infection develops. Of importance is the perpetuation of such resistant strains by creation of a carrier state among hospital personnel.

CONCLUSION

Attention has been called to the increase in micrococcal infections among medical personnel during recent years. Many steps can be taken to prevent personnel infections which lead to a weakening of the medical team and also create a new focus of infection for further patient-personnel contamination. These include:

1. Isolation techniques for all patients with proven *Micrococcus* infections.
2. Dressing changes on all patients to be done with nurse assistance and mask and glove technique.
3. More adequate sterilization of bed clothing, especially wool blankets.
4. Removal from duty of personnel with even minor *Micrococcus pyogenes* infections.
5. Avoidance of antibiotic administration except in proven bacterial infections.

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ARRHYTHMIAS AND TACHYCARDIA

Morris J. Seide, M.D., *Hartford*

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SUMMARY

The more common arrhythmias and tachycardias are reviewed. An electrocardiogram is a prerequisite for an exact diagnosis upon which adequate treatment depends. Specific therapy is given for each condition. Digitalis and quinidine are the most commonly used and to date the most effective drugs in treatment of the arrythmias. Digitalis toxicity is important because dangerous.

Arrhythmia implies an absence of rhythm, irregular cadence of successive ventricular beats. The term is also applied to regular rhythms if the pacemaker, the site of origin, is other than the sino-auricular node. Arrhythmias range from completely benign, such as sinus arrhythmia, to those which themselves threaten life, such as ventricular asystole or ventricular fibrillation.

Because this subject is so often confusing, a brief review was deemed appropriate, presenting a guide to early therapy. More extensive reviews are available.[5,7]

Normally, the sino-auricular node has an inherent rhythmicity. A wave of excitation arises from it, traverses auricular muscle to reach the atrioventricular node, passes through the A-V bundle, the bundle of His, its left and right bundles, the Purkinje fibers and finally, through the radicles and twigs of the Purkinje network, activates the ventricular myocardium. Rhythmicity is disturbed if a focus, other than the S-A pacemaker originates the beat or if the normal beat does not reach the ventricles, e. g., in an atrioventricular block.

At present the three most popular hypotheses of initiation and perpetuation of the rapid arrhythmias are the circus theory, re-entry, or an ectopic focus.[4,8,9,14,15] No one hypothesis adequately explains all the observed phenomena. Space precludes discussion of each. The most attractive is that of an ectopic focus.[15] According to it, the arrhythmia will present as isolated ectopic beats, tachycardia, flutter or fibrillation, depending on the rate at which the focus fires. Such a focus may be located in either atrium or either ventricle and more than one focus may be present. Factors which increase or decrease myocardial irritability influence the arrhythmia arising from such a focus.[1,13]

The most frequent arrhythmia is sinus arrhythmia, so common and so obviously benign it is rarely discussed with arrhythmias. Most frequent in pediatrics and geriatrics, it is due to vagal influence on the sino-auricular node. This is a normal rhythm.

The relative incidence of other arrhythmias was recently estimated from electrocardiograms of hospitalized patients.[3] Most frequent were ectopic ventricular contractions (nine per cent), atrial fibrillation (six per cent), ectopic atrial contractions (four per cent), and all degrees of atrio-ventricular block combined (four per cent). Atrial flutter, atrial tachycardia, and sinus arrest were less than one per cent each. All other tachycardias combined totalled less than one per cent including all the ventricular arrhythmias.

Diagnosis of the type of arrhythmia can be positive only by electrocardiogram. Since adequate therapy depends on an accurate diagnosis, a tracing is mandatory before therapy is instituted unless emergency forbids delay. At times, even an electrocardiogram will not give the final diagnosis but allow only a narrow differential. Bedside maneuvers may suggest the diagnosis but such criteria are often misleading and unreliable. Carotid sinus massage may be valuable and, in paroxysmal atrial tachycardia, may even be adequate therapy. However, it is a maneuver with inherent danger and should be used with caution.[2,11,12]

The correct technique of carotid massage requires the patient to be supine with an electrocardiograph machine running. By palpation, the carotid artery is located in the neck just below the angle of the jaw. Often a bulge can be palpated, representing the sinus. (More frequently, this is not located.) First the right, then the left carotid artery should be vigorously massaged but no longer than six seconds each. Response is unlikely unless it occurs during this interval. Further compression only induces cerebral anoxia. Vagal tone may also be increased by eye-ball pressure, forced breathing, head-down position, evacuation or vomiting.

Single ectopic beats may be asymptomatic or may be described as a "skipping," "stopping," "turning over," "thumping," "flopping," "fluttering," or a "choking feeling." Three or more in succession are called runs of tachycardia, ventricular or atrial, depending on their origin. Frequent ectopic beats may be a prelude to tachycardia or fibrillation. Prognosis for life is excellent if the heart is otherwise normal. In the healthy individual no therapy is indicated except reassurance, some sedative or hypnotic, adequate rest, and moderation in the use of tobacco, coffee, and alcohol. In the presence of other cardiac abnormality, a trial of digitalis may be indicated even if heart failure is not clinically obvious. Close observation is necessary since digitalis may increase myocardial irritability. Ectopic ventricular contractions may be a manifestation of digitalis toxicity and are treated by stopping the drug. They frequently follow mercurial therapy and may represent a deficiency of potassium, for which replacement is indicated.[6] If the ectopic beats persist, annoy the patient or the physician, and especially if they occur after myocardial infarction, quinidine or pronestyl is indicated.

Rapid arrhythmias and tachycardias lead to difficulty because of the decreased diastolic filling time, decreased coronary blood flow, decreased stroke volume, and decreased cardiac output.[24] Even the healthy heart is inefficient above a rate of 200. About one half of patients with normal hearts will show evidence of hypoxia at such rapid rates, one third will have pain and one sixth, angina. Hemiplegia and gangrene have occurred, due solely to the decreased cardiac output.

Sinus tachycardia is the most common of the rapid tachycardias. It is a physiologic response to an exciting factor: exercise, emotion, anxiety, acute cardiac or pulmonary infarction, acute heart failure, fever, acute blood loss, shock, orthostatic hypotension, or thyrotoxicosis. The immediate cause is usually decreased vagal tone but occasionally sympathetic tone is increased. The diagnosis is best made by electrocardiogram, finding an atrial rate greater than 100 with P waves, which are not retrograde in contour, preceding each QRS at a P-R interval of 0.12 second or longer. Clinically, the onset and end of the tachycardia is gradual, the rate may change with rest, sedation, changes in position or deep breathing. Carotid sinus massage induces no or only slight, transient slowing. Therapy is directed toward the underlying cause and may include sedation and reassurance. Digitalis, quinidine and other cardiotonic drugs are ineffective. Digitalis will help only if the underlying cause is heart failure.

Paroxysmal atrial tachycardia occurs at all ages and in all degrees of health. In itself it does not indicate heart disease, although it is a frequent accompaniment. Inciting factors may be abdominal distention, gall bladder disease, tobacco, coffee, alcohol, thyrotoxicosis, emotion or anxiety. The diagnosis is best made by electrocardiogram which shows a rate greater than 180, precisely regular, abnormal or absent P waves and a QRS duration of less than 0.10 second. If P waves are not discernable, it is usually classified as supraventricular tachycardia. Therapy is outlined in Appendix I.

Atrial flutter almost always indicates heart disease. The diagnosis is best made by electrocardiogram which shows no P waves but flutter waves, absolutely regular in spacing, amplitude, and contour at the rate of 250-350 per minute. The baseline in leads 2, 3 and aVF may be undulating and have a saw-tooth appearance. The ventricular rate may be rapid, slow, regular or irregular, or may be completely disassociated from the atrial rhythm. Carotid sinus massage is rarely of any help in establishing the diagnosis and is dangerous. Therapy is outlined in Appendix I.

Atrial fibrillation is the most common arrhythmia of advanced heart disease. The most frequent associated heart diseases are mitral stenosis, hypertension, and myocardial infarction. Paroxysmal bouts of atrial fibrillation may occur in apparently healthy young adults. In older patients, the sudden onset of atrial fibrillation is most commonly due to myocardial infarction, pulmonary infarction or pneumonia. The diagnosis is best made by electrocardiogram, which shows no P waves, but irregular or invisible flutter waves between 350-600 per minute and a grossly irregular ventricular rhythm. The ventricular rhythm may, on rare occasions, be regular, representing a nodal rhythm with complete A-V dissociation, and usually due to digitalis toxicity. Therapy of atrial fibrillation is outlined in Appendix I.

Sensitive carotid sinus can cause ventricular asystole, syncope, dizziness or lightheadedness.[19,23] Symptoms are the same as Adams Stokes attacks. Medical therapy including atropine, belladonna, ephedrine, epinephrine, paredrine, neosynephrine, and vasoxyl, is unsatisfactory. Results have been best after reassurance, loose collars and sedatives. Surgical denervation is usually unsuccessful although good results have been reported after intracranial section of the glossopharyngeal nerve.[16] X-irradiation produces unpredictable results.[2]

Heart block. About one out of every 20 cardiac patients has incomplete block, usually asymptomatic. About one in 200 cardiac patients has complete heart block which usually begins with Morgagni-Adams-Stokes syncope. Average life expectancy after onset is four and one-half years. The object of therapy is to prevent and manage Adams-Stokes attacks. Digitalis is not contraindicated and congestive failure should be treated as in any other patient.

Morgagni-Adams-Stokes attacks are often misdiagnosed as epilepsy. Symptoms may present as labored respirations, parasthesias, amnesia, tinnitus, trembling, vertigo, precordial pain, sensation of loss of vision, sensation of the heart stopping, tongue biting, incontinence, convulsions, or syncope. Suspect all elderly patients who present with any of these symptoms. Rarely is the physician able to observe an attack, and even more rarely will electrocardiographic evidence be obtained. Diagnosis is usually made by history. Four mechanisms: ventricular standstill, slowing, tachycardia, or fibrillation, may reduce cardiac output to levels which impair cerebral function. Therapy depends on diagnosis of the mechanism. Epinephrine or ephedrine is indicated for standstill or ventricular slowing but is contraindicated for tachycardia or ventricular fibrillation. Quinidine or pronestyl is indicated for tachycardia or ventricular fibrillation but contraindicated in ventricular standstill. Therapy is outlined in Appendix I. Adequate cardiac output must be reinstated within four minutes of the onset of circulatory arrest. Beyond this time limit, adequate cerebral function probably will not return.

Ventricular tachycardia is dangerous because it may lead to fibrillation or standstill. Diagnosis is by electrocardiogram. Prognosis depends on the underlying cause. Therapy is outlined in Appendix I. Digitalis may lead to ventricular fibrillation.

Circulatory arrest may occur during various diagnostic and therapeutic procedures, particularly if hypoxia is induced.[18] In a compilation of 1,200 cases,[21] about 90 per cent were standstill and only 10 per cent ventricular fibrillation. Rapid, accurate diagnosis and immediate correction is imperative. The only available therapy often is thoracotomy and manual cardiac systole. This, however, introduces another, often overwhelming, complication. A cardiac stimulator has been developed[26] which can externally stimulate effective ventricular contractions when the electrodes are placed about 4 inches apart over the apex of the heart. Such a stimulator produces a measured, repetitive stimulus, 2-3 milliseconds in duration, 6 milliamps current, up to 135 volts peaked, and at a rate which can be varied by the physician.

The cardiac stimulator has no effect in ventricular fibrillation. To correct this arrhythmia requires a shocking current, 110 v., 1 amp., 60 cycle A. C., applied directly across the heart for 0.15 second, inducing standstill. Repeat shocks may be necessary. These instruments require thoracotomy and application of electrodes across the heart. Recently an external defibrillator has been developed[25] which can stop any rhythm, does not require thoracotomy, and is effective over the closed chest. Voltages range up to 720 volts with up to 25 amperes of current.

Ventricular fibrillation is especially prone to follow myocardial infarctions and is especially lamentable when it strikes a young patient whose heart otherwise is in good condition, apparently capable of adequate function for many years if the aberrant, otherwise fatal, arrhythmia can be corrected. Failure to overcome standstill or fibrillation is most often due to inexcusable delay in instituting therapy. This, in turn, is due to inadequate knowledge, inadequate equipment, reluctance to apply the knowledge, or waiting for consultation and confirmation of the diagnosis.

Every hospital should have a program of concerted house staff education in resuscitation of the heart. Many lives can be saved by such effort. The necessary equipment includes a monitoring device, electrocardiogram machine, oxygen available for mask and bag breathing, an airway, intratracheal tube, breathing apparatus, isuprel, epinephrine, norepinephrine, intravenous supplies, a long needle and syringe for cardiac tap, electronic cardiac stimulator, electronic defibrillator, and a sterile kit containing scalpel, rib spreader, and sterile tips for direct cardiac defibrillation.

CARDIOTONIC DRUGS

The two most commonly used and, thus far, the most effective drugs in the treatment of the arrhythmias are digitalis and quinidine.[7,10] Appendices I and II list some of the characteristics of these drugs and suggested methods of use.

There is only one digitalizing dose and one maintenance dose: *That which is most effective for your particular patient.* Forget quoted figures. Adjust the drug to the requirements. The only guide to adequate digitalization is adequate slowing of the rate or signs of early toxicity. Be alert to changing requirements. More may be needed if infection, fever, or decreased myocardial reserve appears. There is no qualitative difference between the types of digitalis—only a quantitative difference in rate of uptake, action, and excretion.

Digitalis toxicity is often first manifest as increased myocardial irritability. At this point, there is no margin of safety. Further increase is dangerous. Digitalis should be temporarily stopped and potassium given.[6] (Orange juice contains 8-10 mEq. per glass; potassium triplex is a palatable mixture containing 15 mEq. per 5 cc.). If ectopic contractions become frequent, or tachycardia develops, quinidine or pronestyl may be necessary. Nausea and vomiting may often be allayed by sucking cracked ice and taking clear liquids frequently.

Many tests have been devised to determine whether a patient has had enough digitalis. All of them are inherently dangerous because they induce toxicity. Tests using intravenous acetyl strophanthidin are especially dangerous and should be abandoned.[20] At the Hartford Hospital the preferred method is Digoxin, 0.25-0.50 mg., orally if possible, repeated at three to four hour intervals if necessary, under close observation, checking the apical rate before each dose. Adequate digitalization is assumed when signs of toxicity appear or the rate slows.

SUMMARY

A brief review of the diagnosis and treatment of the more common arrhythmias and tachycardias has been presented, with a guide to early therapy.

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APPENDIX I

GUIDE TO THE TREATMENT OF ARRHYTHMIAS

I. Always Take an Electrocardiogram

A: Atrial Tachycardia

Non-Urgent

Bed rest, sedation, reassurance.
Simple vagal stimuli: Head-down, forced breathing, evacuation, vomiting, carotid massage, eyeball pressure.
Neosynephrine (not in hypertension).
Neostigmine.

Urgent

No Heart Disease:

Vagal stimuli
Quinidine
Pronestyl
If no effect: Digitalis

Heart Disease:

Digitalis IM or IV
Repeat vagal stimuli
Quinidine
Pronestyl

B: Atrial Flutter

Digitalis to fibrillation or adequate slowing.
If sinus rhythm does not appear, give quinidine.
Young patients, good heart: Try quinidine first.

C: Atrial Fibrillation

Heart Failure Absent

Rest, sedation
Quinidine
Digitalis
Quinidine & Dig.

Heart Failure Present

Digitalis
Digitalis & Quinidine

D: Ventricular Tachycardia

Morphine IV.
Quinidine, pronestyl, oral
Pronestyl, IM, IV.
Quinidine IV.

E: Ventricular Standstill

Slap precordium
Cardiac puncture
Intracardiac epinephrine
IV drip epinephrine, isuprel
External cardiac stimulator

F: Ventricular Fibrillation

External defibrillator
Intracardiac pronestyl, quinidine

APPENDIX II

Agent	Source	Route	Dose	Method	Maintenance	Effect		
						Initial	Maximum	Duration
Dig. Leaf	Purpurea	Oral	1.2-2.5 gm. (1.5)	0.8 gm., then 0.2/q. 6°	0.1-0.2 (0.1)	2-5 hrs.	12-72 hrs.	To 3 wks.
Digitoxin	Purpurea	Oral IV-IM	1.2-2.5 mg. (1.7)	Same	0.05-0.3 (0.1)	3 hrs. (O) ½-1° (IV)	6-8 hrs.	To 3 wks.
Lanatoside C or D (Cedilanid)	Lanata	I.V.	1.2-2.0 mg. (1.6)	1.2 mg., then 0.4/q 4°		10-30 min.	½ to 2 hours	To 4 days
Digoxin	From Cedilanid	Oral I.V.	2.0-5.0 mg. (3.75)	0.75-1.0 mg. 0.25/q 6°	0.25-1.25 (0.5)	1-2 hrs.- (O) 2 min.-2 hr. (IV)	6 hrs. 1-2 hrs.	To 3 days
Gitalin	Purpurea	Oral	3.0-10.5 mg.	2.5 mg., then 0.75/q 6°	0.25-0.75	Probably no advantage over other forms in administration or toxicity rating.		
Ouabain C-Strophanthin	Seeds of Strophanthus	I.V.	No previous digitalis. 0.5 mg.; 1 hr. later 0.25; next hr. 0.1 mg.			1-10 min. Dangerous drug. Monitor with ECG	1-10 min.	1-4 days
Acetyl Strophanthin	Same	I.V.	0.5 mg., followed by 0.25 at 30 min. intervals			1-5 min. Dangerous drug. Monitor with ECG, Especially dangerous if used as a test of digitalization.	5 min.	

APPENDIX III

QUINIDINE

Maximal clinical response: 1½-3 hours after oral dose.

Effect depends on *plasma* level.

Toxic effects: nausea, vomiting, abdominal cramps, diarrhea, diplopia, colored vision, hypotension.
Cinchonism (rare): tinnitus, decreased hearing, blurred vision, giddiness, tremor.
Idiosyncrasy: Leukopenia, fever, eosinopenia, hemorrhagic purpura.

Check apical rate before each dose. Take ECG for rhythm at least once each day.

If ECG shows depressed sinus node, increased A-V block, increased bundle branch block, widened QRS, *STOP QUINIDINE.*

Depression of S-A & A-V nodes may lead to fatal asystole. When the ectopic focus finally becomes depressed, sudden death.

No good evidence that quinidine increases frequency of emboli.

Give test dose orally, 0.1-0.2 gm. If no ill effect, proceed:
Day 1: 0.2 gm. q. 2° times 5-6 doses. *STOP AT*
Day 2: 0.4 gm. q. 2° times 5-6 doses. *DESIRED*
Day 3: 0.6 gm. q. 2° times 5-6 doses. *EFFECT*
Day 4: 0.6 gm. q. 2° times 5-6 doses.

Rarely go above 0.6 gm. In unusual circumstances some have given up to 1.0 gm. times six.

Maintenance dose will depend on amount required for conversion.

Minimal: 0.2 gm. TID.

IM or IV, as lactate, gluconate, or hydrochloride:

0.2-0.5 gm., repeated q. 2, as needed and as tolerated, or continuous slow IV drip.

Two observers necessary: constant check of BP, P, R; must have ECG running.

Have intravenous glucose dripping into other arm and pressor drugs drawn up in a syringe, ready to be given.

PRONESTYL

Orally: 500 mg., followed by 250 mg. q. 3-4 hours.

IM: 0.5-1.0 gm., repeated at 1-3 hour intervals, as needed and as tolerated.

IV: 200 mg./minute or slower to total of 2.0 gm. Same precautions as IV quinidine.

CONTACT DERMATITIS FROM THERMO-FAX COPY PAPER

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SUMMARY

Tertiary butyl catechol has been found to be the chemical ingredient in Thermo-Fax, a buff copy paper. This processed has produced a severe dermatitis in operators of the machine and in those who clean and repair it. A single case report details the development and progress of the disease. By elimination of the irritating chemical in this particular process, prevention of future cases of contact dermatitis due to this source is anticipated.

A copy paper process recently introduced into business and physicians' offices has apparently brought with it a highly sensitizing factor. Operators of the machine or those that clean and repair it are probably more readily sensitized than the casual handler of the processed copy paper. In one instance the ensuing dermatitis was unusually pruritic, quite disabling and very resistant to the usual therapy for contact dermatitis. To acquaint the profession with this (as yet unreported)* problem the following case report should be of interest.

V.E., a 30 year old male, cost accountant for a manufacturing firm first noticed in early November, 1956 that a mild dermatitis was developing at the base of the left third nail. Simple local medication, improved protection, and a more careful cleansing regime failed to control its spread. By December similar lesions had appeared on the dorsa and sides of the adjacent left fingers as well as on the right first two digits. The eruption continued to progress involving the hands, eyelids, and midface, peculiarly confining itself to a well defined circumoral area. The diagnosis was considered to be either a contact dermatitis or a nummular eczema complicated by local medication, excoriations, and possible infection. Psychosomatic factors were also suspected as casual inasmuch as the patient was under extreme emotional tension both at home and in his office. To control further dissemination and to relieve the symptoms, steroid therapy at this time produced prompt improvement except for considerable residual dryness and some pruritus.

However, the dermatitis rapidly recurred so that on May 4, 1957 when the patient presented himself to the writer an acute vesicular, crusted, edematous and erythematous, extremely pruritic dermatitis involved all sides of the hands and wrists and most of the face and neck. Toxic symptoms including a 99.4° temperature indicated the presence of a complicating pyogenic infection. While awaiting cultural growth and subsequent sensitization tests the use of local compresses of boric acid and potassium permanganate solutions and benedryl hydrocholoride orally proved quite ineffective. This was probably due to the resistance of the organisms found later to be a mixed growth of staphylococcus aureus hemolytic coagulase positive and bacillus pyocyaneous, the latter sensitive only to neomycin among antibiotics tested. Though the toxic symptoms rapidly subsided under oral sigmamycin therapy, the local condition persisted practically unchanged until neomycin solution compresses were employed.

During the ensuing three weeks as the dermatitis remained materially unchanged, attention was directed mostly to the elimination of suspected contacts. It was soon noted that office exposure produced flareups of the eruption, whereas subsidence occurred only when the patient because of the increased symptoms remained out of his office for two days or longer. Aggravation also seemed to coincide with work under fluorescent lighting, however, complete avoidance or the use of local screening devices including medication failed to produce much change.

Patch testing to the usual office contacts including "ozolite" paper was negative. The patient at first overlooked his contact with a copy paper process which had been used in his concern since mid 1956. At this time his contact was more casual but earlier it had been his particular assignment to supervise the operation of the machine, make minor repairs as necessary, and to cleanse off the belt and the machine with a furnished cleansing agent. Patch testing was therefore done to Thermo-Fax buff copy paper No. CA-2 both before and after processing, and also to a sample of dust from the top of his office desk. Within a few hours intense burning and itching appeared at the site of the tests necessitating early removal. In spite of this a severe local reaction resulted.

In mid June after the cause of this dermatitis was proven to be due to some factor in the buff copy paper, it was reported to the manufacturer who acknowledged that there was a sensitizing factor present but that they were unable to divulge further details at that time. At the same time inquiry from D. J. Birmingham, M.D., chief dermatologist of the United States Public Health Service, failed to add further information with the exception that this case report was the first of that type to be brought to the Bureau's attention.

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* Since acceptance of this manuscript for publication two articles on the same subject have appeared in the *Archives of Dermatology* and one in *Journal American Medical Association.*

Throughout the summer by scrupulous cleansing, the avoidance of known contacts, and the daily use of all possible protective devices, the dermatitis could be partially controlled. However, it practically involuted during his three week August vacation only to recur as soon as he returned to his regular office work. Because of the nature of his position and his present and future value to his firm he has continued to sacrifice appearance and comfort rather than his job.

Fortunately recent information has disclosed that because of this and other subsequent cases the manufacturer of Thermo-Fax has altered the con position of his buff copy paper, eliminating th suspected tertiary butyl catechol which chemica was present only in the buff paper. Eventuall therefore, as this recently substituted paper grac ually supplants the older paper it is expected tha future opportunities for sensitizing contacts will b eliminated.

Thermo-Fax Paper is manufactured by Minnesota Minin & Manufacturing Company.

COMPREHENSIVE MATERNITY CARE

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SUMMARY

Despite great reductions in maternal and infant mortality in the last twenty years, the further control of infection, toxemia, and particularly hemorrhage, trauma, and shock as causes of maternal death and obstetric accidents demands increased attention.

Saving from death, however, is not enough. The baby should be "born well," in the sense of being able to carry on a normal and useful existence. Maternal care involves care of the mother from her own birth throughout her lifetime, since pregnancy affects her life and the life of her family at every age. The "Seven Ages of Woman" are discussed in the light of this concept.

The Family Health Clinic of Boston, established to give broad care through a team of specialists, is described. The project demonstrated the value of close cooperation among all specialists in the care of the pregnant woman, especially between the obstetrician and the pediatrician.

Total maternity care is seen as embracing not only physical factors but social, emotional, and economic components.

I suppose that about the greatest tragedy that can befall anyone is the loss of life associated with the very beginning of life. Abortion, stillbirth, and neonatal death—all pregnancy wastage—contribute their share to this problem. But an even greater tragedy is the loss of a mother's life in giving a new life. I believe that in our present-day culture the mother is the most important single person in our population. She stands at the very heart of the family, between two generations. If, as we believe, the family is the unit of our civilization, the mother is certainly its nucleus.

Progress has been made in combatting both maternal deaths and infant deaths. If we applied the death rates for 1935, for instance, to our present-day figures, about 24,000 mothers would die this year. Instead of that, we expect less than 2,000 to die; we hope considerably less than 2,000. By the same token, instead of 222,000 infants dying, there will be only half that many. As shown by Table I, in 1935 the maternal mortality rate per 10,000 live births was 58.2; in 1953 it was 6.1. That is a

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Read at a meeting on Recent Changes in Maternity and Infant Care, held at Berlin, Connecticut on April 10, 1957. This paper is based on an article published in the American Journal of Public Health, *vol. 46, pages 1547-1552 (December, 1956)*

Table I—Maternal and Infant Mortality, United States, 1935 and 1953*

	Maternal		Infant	
	Deaths	Rate per 10,000 live births	Deaths	Rate per 1000 live births
1935	12,544	58.2	120,138	55.7
1953	2,385	6.1	108,405	27.8

*Vital Statistics—Special Reports. Washington, D. C.: National Office of Vital Statistics.

Table II—Maternal Mortality by Cause, United States, 1935 and 1952*

	1935		1952	
	Per cent of total deaths	Rate per 10,000 live births	Per cent of total deaths	Rate per 10,000 live births
Sepsis	41	24.0	19	1.3
Toxemia				
Hemorrhage	22	12.7	35	2.3
Trauma				
Shock	31	18.2	30	2.0
Others	6	3.3	16	1.2
	—	—	—	—
Total	100	58.2	100	6.8

*Kirkwood, S. B. Twenty Years of Maternal Care. *Children* 2:133-138, 1955.

Table III—Infant Mortality, United States, 1935 and 1953, Rates per 1000 Live Births*

	Under 1 week	1 week to 1 year
1935	25.0	55.0
1953	17.1	27.8

*Adapted from Vital Statistics—Special Reports. Washington, D. C.: National Office of Vital Statistics.

tremendous fall. In the same period the infant mortality rate per 1000 live births decreased from 55.7 to 27.8.

As regards the causes of maternal mortality, Table II reveals some extremely interesting facts. In 1935, 41 per cent of all deaths were due to sepsis, 22 per cent to toxemia, 31 per cent to hemorrhage, trauma, and shock, and 6 per cent to other causes. In 1952, the corresponding figures were 19, 35, 30, and 16 per cent.

It is obvious from these data that the three principal killers of 1935 are the same as those of today. We are doing better, to be sure, but we have not eliminated a single one of them. In spite of antibiotics, one-fifth of maternal deaths are today caused by sepsis. In spite of all our prenatal care, one-third of maternal deaths are due to toxemia. In spite of twenty years of teaching and training and use of blood banks, we have not progressed very much in controlling hemorrhage, trauma, and shock.

You will note also that there is a noticeable increase in deaths due to other causes. This means that today a much more critical examination must be made of these deaths. Their causes are multiple; many are not peculiar to obstetrics. The entire range of medical and surgical diseases contributes.

Let us turn now to infant mortality alone, and compare 1935 to 1953. As shown by Table III, in the earlier year there were 25 deaths under one week per 1000 live births; the rate in 1953 was 17.1, a drop of only one third. Deaths from one week to one year, on the other hand, were cut in half—from 55 to 27.8—in these twenty years. We are doing much better in the one week to one year group than in the first-week group. This has a significant corollary: the causes of death under one week are basically prenatal. Prevention here is not the job of the pediatrician; it is the job of the obstetrician. Actually, as I hope to show, it is the job of them both.

These three tables then, show first that we have made definite improvement in both maternal and infant mortality. In fact, we have made such an improvement that one might well question my right to criticize. The answer to this is simple. As long as a single mother dies in childbirth, the maternal mortality rate is too high. Call that an unattainable ideal if you will, but 6 per 10,000 was considered unattainable a generation ago. Unless you set your eyes to that kind of a goal, you will not reach it.

These figures are significant in another way. The causes of death are the same; they have been redistributed somewhat, but we have not rid ourselves of a single major cause of obstetric death. At the same time, the nonspecific causes of death have assumed much greater importance. Finally, we are not doing as well for infants in the first week as for those in the period from one week to a year, the corollary being that the causes lie before birth.

Putting all this together, let me ask this question: Is saving from death enough? What of the seriously damaged baby or the injured mother? These injuries can be seen and measured and to some degree alleviated. But more and more I am becoming concerned with subtler injuries. Suppose that I have conducted labor or guided pregnancy in such a way that there has been injury so subtle that it has not affected the baby visibly but has changed a potential genius into just an average child. That may not be so bad; perhaps we don't need so many geniuses. But go one step farther. Suppose that a child who would have become an average solid citizen has been injured through some negligence or omission of ours and is reduced to the borderline where he is unable to handle his environment and becomes a charge on the community. Having brought about striking reductions in infant mortality we perhaps ought to say to ourselves that it is not so much a matter of being born alive or dead as it is a matter of how well one is born and how well the mother is to remain.

Let me emphasize that I am not giving up the attack on the remaining increment of mortality. That must always be our goal. But we do have this broader objective, and fortunately both these goals can be reached by the same methods.

Let us examine these methods.

First, a word of caution is in order. No one who advocates or accepts the broad approach can afford to give up the time-honored and well established medical and surgical procedures by which obstetrics has advanced so greatly. You cannot substitute the social worker for the trained surgical obstetrician. You cannot substitute the nutritionist for the skilled operating room or delivery room nurse. In fact, my only justification for talking about a broad concept at all is that medical and surgical obstetrics has reached the degree of advancement that it has.

The methods used thus far in maternal care must be examined in the light of their value in achieving our stated goal in the future. An objective revaluation may well indicate that traditional methods alone will no longer meet our needs. It is not unreasonable to expect methods to change. That has been the history of all disease control. We do not control scarlet fever or tuberculosis in the way we did twenty-five years ago. There is no reason why we should for all time cling to the traditional approach in maternal health.

One of the most interesting examples of this new approach is the study made in certain Latin-American countries by Dr. Verhoestraete, formerly in charge of maternal and child health for the World Health Organization and now one of the directors of the Pan American Bureau. He has shown that until the general causes of death in an undeveloped country are reduced to a critical level, none of the maternal health measures can have any effect. Because of this, the pregnant women are dying from diseases that affect everyone rather than those peculiar to pregnancy. This applies particularly to the communicable diseases, especially the enteric diseases. For example, if the population is dying off at a high rate from typhoid fever, it does no good to conduct a well run prenatal program.

There is also mounting evidence that agents other than purely physical are influencing maternal health. Perhaps the simplest example is the well known effect of the emotions on the nausea and vomiting of pregnancy. Another instance is the correlation of the social status of mothers with their physical condition, with the way they go through labor, and with the results of their labor. This was shown significantly by Baird's studies in Aberdeen.

The National Health Act in Britain calls for a classification of population into groups on the basis of the earning capacity of the husband or father. This classification was instituted purely for census purposes, but it gave Dr. Baird convenient levels at which to compare other factors. He fortunately was working in a relatively confined area with a homogeneous population, and so achieved interesting results. He found that it was possible to relate social status with ability to have children easily and safely. There was evidence that the many factors which determined the status of these women had a corresponding effect on their physical status. Height appeared to be the best index of this relationship; 150 centimeters was the critical level. The women whose height exceeded this value tended to have a more female type of pelvis and to experience easier deliveries than their shorter sisters. Baird also found that although women over 150 centimeters in height did better in pregnancy and delivery, this advantage was decreased by the fact that the taller women, coming by and large from the two upper levels of society, tended to marry and have children later. Thus an adverse age factor entered the picture and to some degree nullified the advantage of being tall.

The problem of the unmarried mother also stems from sources deep within the economic and social structure of society. Social and economic factors associated with illegitimate birth are almost always unfavorable.

I now come to what I consider the most vital aspect of this reappraisal of methods. If we make our goal not just life and death but the attainment of individual well-being, and even beyond that the attainment of family well-being—because we are, of course, talking about the family—we must look at our traditional methods with complete objectivity. For instance, how can one quiet the concern of a young woman who would rather stay at home to care for her family, but because of economic necessity must go out and work? How does one reconcile the ancient and continuing conflict between desire for a career and the basic urge toward motherhood? How in our machine-type maternity service can the integrity of the family be maintained? How does one reconcile the exigencies of hospital administration with the maintenance of family unity? How can the child be born "into the family" and not "into the hospital"? How can a mother avoid being confused when she is faced with a number of specialists, each of whom is contributing only a fraction of total care? How can we give her a sense of security in the impersonal, almost aseptic atmosphere of the modern hospital? How, in fact, is any relationship with an outsider established in as intimate a matter as pregnancy?

These questions cannot be answered in terms of medication or surgery or anesthesia or blood tests.

We are now ready to make a fundamental approach. Pregnancy is not an isolated incident. It affects the whole life span of woman. It affects the whole life span of man, and because the two together, with the child, become the family, it affects the very life of the family. I am not saying that pregnancy is all that matters to a woman, but it is so vital that it affects her life—and therefore her family's life—at every age.

We have, I believe, accepted this as an axiom without studying it to see precisely what it means. As a way of doing this, let us examine the total life span. For convenience, and with a not unreasonable precedent, I propose the Seven Ages of Woman.

The first of these seven is the age of birth. It goes without saying that to bear well one must be born well. The mother who is handicapped from birth is handicapped in giving birth.

The second age comprises infancy and childhood. These are formative periods, both physically and emotionally, with development based largely on imitation. The child tends to mimic the mannerisms and vocabulary of those around him. More and more it becomes evident that the child similarly matches the emotional reactions of parents, even at very early ages. This is a factor for good just as much as it is for ill. Although this is the time of the traditional childhood infectious diseases, the physician is for the most part able to control them.

The third age is that of puberty and adolescence—probably the most difficult period in the life span of a woman. The transition from girlhood to womanhood is often thought of as a gradual process, but the essential emotional and physical impact comes suddenly. Think what this means. In a space of twenty-four hours the young girl is completely changed. She will never again be the same to herself, to her family and friends, or to the community. She cannot look on anyone else in the same light. Yet we give her almost no help. We do not tell her what is coming. When she asks questions, we treat the whole subject as though it were something that she either should have known—how, I have no idea—or should not know because there is something bad about it. So we leave her to flounder and find herself as best she can. This is a time when we should give the adolescent girl full support. It must also be the right kind of support, for she is in a state of conflict, developing her own personality but at the same time instinctively still leaning on her parents.

The fourth age is that of marriage. Here again, something happens that is not fully accepted or realized. Marriage means the end of carefree play and the beginning of responsible living. More than that, it brings a loss of what might be called sovereignty. The woman is no longer her own mistress; she has entered into what is at the very least a cooperative venture. In addition, marriage means the removal, virtually in a single day, of the barriers with which our civilization has surrounded her in adolescence.

The fifth age is pregnancy. There is now further loss of sovereignty because there is a child in the offing. There is a conflict between love for the child, love for the husband, and love for self. There is nothing wrong about this. The wife is not to blame for wanting to "get away from it all" now and then. At the same time she realizes that she cannot, so there is more conflict. Also, do not underestimate the fear of physical harm. A woman may still suffer injury or death in childbirth, and she knows it. She gladly takes the risk, but the fear remains, nevertheless. She is not encouraged by being told that 50 to 60 per cent of maternal deaths are preventable.

The sixth age is the menopause. This is a trying time for everyone in the family. For treatment we fortunately have at our disposal a considerable armamentarium of drugs and hormones, but the basic approach continues to be that of intelligent understanding. One important fact is sometimes missed. The woman in the menopause is physiologically unstable by the very nature of the changes she is undergoing, and in our particular economy she is frequently the mother of a teen-age youngster. With the teen age, another period of instability, we are in effect asking an unstable menopausal mother to be the backstop of an unstable adolescent. Certainly both of them need all the support we can possibly give.

The seventh and final age is that of the grandmother. This is a delightful time, when the older woman can rest secure in the wisdom gained from raising a generation and can give advice without accepting responsibility! Even so, it is a very wise grandmother, and an even wiser daughter, who can fit the viewpoint of two generations to the needs of a third one. This calls for a great deal of tact on both sides. I need not remind you that this is also a period when many of the ill effects of pregnancy become apparent and when neoplasms come into the picture more and more. It has always seemed to me illogical for the maternal health worker to drop the mother after she has passed the reproductive age. I believe that maternal health continues right through the menopausal period, if for no other reason than that the grandmother is an exceedingly important influence on the next generation.

I have pinpointed the woman in this division by ages, but you must understand that everything I have said applies similarly to the man.

It was to explore the possibility of putting this concept into practice that we started the Family Health Clinic at the Boston Lying-in Hospital, in conjunction with the Children's Medical Center and the Harvard School of Public Health. Our aims were twofold. One was to give this broad type of care, and in doing so to see whether a team of specialists, each representing his own field, could give the feeling of security so needful for the mother, or whether our shotgun approach would leave only multiple wounds. The other aim was to bring the family back together—to reunite in one clinic the mother, father, and child.

The prenatal clinic, the postnatal clinic, and the well-child clinic were all held in the same outpatient department simultaneously, handled by the same staff. The only break in the continuity of care was in delivery, which was conducted by the duty staff of the day, not necessarily by the staff of the Family Health Clinic. The ideal of continuous care by a single staff was not feasible under the existing hospital schedule.

Our team consisted of an obstetrician, who was in charge—as he must be, since his training fitted him best for this over-all responsibility—a visiting nurse (we were associated with the Visiting Nurse Association of Boston), a social worker, and a nutritionist. Later we acquired a psychiatrist and a psychiatric social worker. Although we had no health educator, every one of the team was conscious of the problem of education.

As the study progressed the clinic staff came to feel that they were able to approach the family as a unit and to maintain it as a unit, and that it was possible to develop a "clinic personality" to which the mother and father could relate with as much feeling of security as they could to an individual physician. The team member also gained a much keener appreciation, not only of his own specialty in relation to others but also of the specialties of the other members in relation to his own, this in spite of the fact that they had been working together more or less informally for years. For instance, it was a revelation to me to work with the pediatrician from the third month of pregnancy on through the first year postpartum. I am sure that our pediatrician felt the same way in his association with the obstetrician during the prenatal period. But let me re-emphasize here that the leadership must rest with the obstetrician. He must willingly accept the aid willingly given by all the other workers, but the final responsibility is his. His critical decisions must always rest on the basis of sound medical and surgical practices.

I envy particularly those of you who are nurses, because it seems to me that in the hospital, in the physician's office, and particularly in the community and the home you get into the family's thoughts and feelings much more than anyone else can possibly do. Along with that goes a heightened responsibility which you must accept.

In maternal health then, there are two remaining tasks. First, every possible maternal death must be prevented. Second, we must see that babies are born alive *and* with the best possible endowment for a normal and useful existence.

On the strength of our work thus far, we have gained the right to ask, not whether a child has been born alive or dead, but *how well* he has been born alive.

To do this, we must maintain our foundation of medical and surgical obstetrics and, building on this, see beyond with a broad concept that adds to physical factors the social, emotional, and economic components of total maternity care. This is the requirement for the future.

CLINICAL OBSERVATIONS OF A NEW ORAL DIURETIC, CHLOROTHIAZIDE (DIURIL)

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THE efficiency of oral diuretics which have had extensive clinical trials has thus far been disappointing. The organomercurials have had variable absorption rates, a high incidence of untoward gastrointestinal effects and have demonstrated relatively low potency. Similarly, carbonic anhydrase inhibitors have had low potency and are also prone to the development of tolerance.

A new oral diuretic agent, chlorothiazide (Diuril*), has been introduced, which is a carbonic anhydrase inhibitor and in preliminary and early reports[1,2,3,4] has demonstrated adequate potency with no development of tolerance and little or no undesirable side effects.

It is the purpose of this paper to present clinical impressions gained from the use of this agent as compared to chlormerodrin (Neohydrin) in eighteen cardiac patients under reasonably standardized conditions.

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SUMMARY

On the basis of clinical evaluation of eighteen courses of therapy in fourteen patients, and aided by semiquantitative objective measurements, it would appear that chlorothiazide is a potent drug and superior as an oral diuretic agent (at these respective dosage levels) to chlormerodrin which, in the authors' experiences, is the most potent oral diuretic substance that has received widespread clinical trial thus far.

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*Kindly supplied by Merck Sharp and Dohme, Research Laboratories.

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PHARMACOLOGY

Chlorothiazide (6-chloro-7-sulfamyl-1, 2, 4-benzothiadiazine-1,-dioxide) is a nonmercurial, oral diuretic compound which alters the tubular transport of electrolytes causing considerable diuresis of sodium and chloride and, to a lesser extent, of potassium and bicarbonate.[1,2,3,4] Concomitant with this electrolyte loss, there occurs a water diuresis. *In vitro* studies have identified the drug as a carbonic anhydrase inhibitor. The dosage range varies between 0.25 and 2.0 grams per day.

METHOD AND MATERIALS

All patients were selected from the General Medical Service or from the private medical service of one of the authors (O. R.). Only patients whose primary difficulty was cardiac were used although there was usually some concurrent disease.

All patients were placed on a 1200 mgms. sodium diet and on bed-to-chair as a maximum of activity. Daily intake and output were measured and daily weights recorded. Blood pressures were recorded four times a day and daily urines were examined for pH and specific gravity.

The following tests were made at seven day intervals: complete blood count and platelet determination, nonprotein nitrogen, fasting blood sugar, routine urine examination, bromsulfophthalein excretion, cephalin flocculation, serum glutamic oxaloacetic acid transaminase, total protein and albumin-globulin ratio. Serum electrolytes were determined at three day intervals.

No other diuretic agent was employed during this investigation except where so noted. Most patients, by nature of their primary illness, were on a digitalis preparation.

An equal number of prescriptions were compounded each, for chlorothiazide and chloromerodrin, the latter to serve as a crude control. Each prescription was identified by a five digit numeral only. The dosage of chlorothiazide was 1.0 gram twice daily, that of chlormerodrin three tablets once daily. If a poor response was obtained after sufficient clinical trial, the medication was identified and the alternate preparation used.

The patient material is summarized in Table I. All patients were studied on an inpatient basis for seven to twenty-one days with outpatient follow-up available on three patients to a maximum of three months. In view of the high costs of hospitalization, no attempt was made to await stabilization o the patient upon admission before diuretic therapy was begun. However, this disadvantage (in objective evaluation) was common to both medications.

Results were classified as: (1) Failure, (2) Equivocal, (3) Fair, and (4) Excellent. The criteria used were clinical response plus the consideration of the objective measurements available.

CASE REPORTS

L. S. CASE I:

A 42 year old, negro female with rheumatic heart disease, mitral stenosis and mitral insufficiency was admitted to the hospital in frank pulmonary edema. The patient had been maintained on digitalis at home and had required relatively frequent parenteral mercurials. She was placed on chlormerodrin therapy but after six days no diuresis and no weight loss had occurred and patient was switched to chlorothiazide therapy. During five days of therapy, the arm-to-tongue circulation time dropped from 27 to 20 seconds. A five pound weight loss was noted associated with a sodium diuresis. The output-intake ratio rapidly approached 1.

Overall impression: Failure to respond to chlormerodrin. Fair response to chlorothiazide.

A. C. CASE II:

A 59 year old, white female with rheumatic heart disease, mitral stenosis and mitral insufficiency was admitted to the hospital because of the progressive development of congestive failure despite digitalization, salt restriction and parenteral mercurial injections. Over a fifteen day course of therapy with chlormerodrin, the patient improved from functional class IV to III. Despite repeated thoracenteses (to a total of 4,300 ccs.) a weight loss of only eight pounds was achieved, not associated with an increase in the output-intake ratio.

Overall impression: Equivocal response to chlormerodrin therapy.

E. N. CASE III:

A 78 year old, white male with arteriosclerotic heart disease was admitted to the hospital in frank pulmonary edema precipitated by bronchopneumonia. The patient had been maintained in a fair degree of compensation at home with digitalis, salt restriction, and intermittent parenteral mercurial therapy. During a thirteen day course of chlormerodrin therapy, a weight loss of five pounds was noted, not associated with a significant diuresis or improvement in the output-intake ratio. The clinical condition improved greatly as the bronchopneumonia responded to antibiotic therapy. No significant electrolyte change was noted.

Overall impression: Equivocal response to chlormerodrin therapy.

H. P. CASE IV:

A 59 year old, negro female with kyphoscoliotic heart disease was admitted to the hospital because of the progression

Table I

CASE	SEX	AGE	DIAGNOSIS	CONCURRENT DISEASE	FUNCTION CLASS*	DURATION OF THERAPY (DAYS)
L.S.	F	47	RHD	D. mellitus	II	6-N 5-D
A.C.	F	59	RHD		IV	15-N
E.N.	M	78	ASHD	Bronchopneumonia; Cholelithiasis	III	13-N
H.P.	F	59	KSHD	ASHD and hypertension	IV	4-D 4-N
H.G.	M	64	RHD	ASHD and D. mellitus	III	7-N
N.P.	F	78	ASHD	Essential hypertension	III	10-N
M.B.	F	70	ASHD		IV	9-N
L.C.	F	58	RHD	Cholelithiasis	III IV	7-N 10-D 11-D
J.C.	M	69	ASHD	Laennec's cirrhosis; D. mellitus	III (?)	10-N
E.O.	F	66	ASHD	Essential hypertension	IV	9-D
D.R.	F	51	RHD		IV	21-D
F.C.	M	74	ASHD	Essential hypertension	II	7-D
J.L.	M	50	ASHD		II	11-D
E.K.	F	72	ASHD	Controlled Hyperthyroidism	IV	7-D

*Classification of the American Heart Association
D-Diuril (chlorothiazide)
N-Neohydrin (chlormerodrin)

of chonic congestive heart failure despite digitalis maintenance, salt restriction, and frequent parenteral mercurial therapy. There was concomitant hypertensive and arteriosclerotic heart disease. The patient was placed on chlorothiazide therapy but after four days continued to gain weight and was placed on chlormerodrin. Following four days of therapy with poor results she developed a hypertensive crisis and expired shortly thereafter.

Overall impression: Failure in response to therapy with both chlorothiazide and chlormerodrin.

H. G. CASE V:

This 64 year old, white male had asymptomatic rheumatic heart disease until one year prior to admission when he developed anginal attacks which caused him to progress rapidly to a class III functional status. Severe nocturnal dyspnea precipitated hospital admission. During a seven day course of chlormerodrin therapy the patient improved clinically as evidenced by disappearance of nocturnal dyspnea and angina. An initial weight loss associated with a significant but short-lived diuresis was noted.

Overall impression: Equivocal response to chlormerodrin therapy; inasmuch as weight loss and diuresis were associated with controlled restriction of salt intake and activity and were not maintained.

N. P. CASE VI:

A 78 year old, white female with long standing hypertension and arteriosclerotic heart disease was maintained well on digitalis and quinidine at home. The patient voluntarily discontinued her medications and slowly decompensated over the two months prior to admission when she was seen with peripheral edema and early pulmonary edema. During a ten day course of chlormerodrin therapy and redigitalization she improved gradually. A weight loss of four pounds was noted without any appreciable diuresis.

Overall impression: Equivocal response to chlormerodrin therapy.

M. B. CASE VII:

A 70 year old, white female with arteriosclerotic heart disease was maintained in precarious cardiac compensation at home despite intensive therapy, mainly because of dietary indiscretion but also because of advanced heart disease *per se.* The patient was admitted as functional class IV. During a nine day course of therapy with chlormerodrin, no significant weight loss or diuresis was noted. At this time she was placed on parenteral mercurial therapy combined with acidifying salts with a very limited response.

Overall impression: Failure to respond to chlormerodrin therapy.

L. C. CASE VIII:

A 58 year old, white female with advanced rheumatic heart disease was maintained in functional class IV at home while on digitalis therapy with salt restriction and intermittent parenteral mercurial administration. She was admitted primarily because of acute cholecystitis secondary to cholelithiasis. During eleven days of chlorothiazide therapy the patient's clinical condition improved but no diureses, weight loss or change in serum electrolytes of significance were noted.

Overall impression: Equivocal response to chlorothiazide therapy.

Within thirty days the patient was readmitted, this time for congestive failure. After seven days of chlormerodrin therapy no improvement in her clinical condition was noted and the alternate therapy was begun. After eleven days of chlorothiazide she was obviously deteriorating and classical diuretic therapy was instituted. Despite all measures, she continued a down hill course and expired within four days.

Overall impression: Failure to respond to either chlormerodrin or chlorothiazide therapy.

J. C. CASE IX:

A 69 year old, white male with advanced arteriosclerotic heart disease, concomitant diabetes mellitus and Laennec's cirrhosis was admitted to the hospital with anasarca, probably due to a combination of all three diseases. He had been fairly well maintained in functional class II until six months prior to admission when, despite digitalization, he decompensated rapidly to class III and was finally admitted in class IV. Intake and output could not be measured accurately due to a lack of patient co-operation. Over a ten day period of chlormerodrin therapy a nine pound weight loss was observed, associated with a mild sodium diuresis. The last four days of this course of therapy was associated with little change in weight or in clinical status. The patient was changed to chlorothiazide therapy with a further six pound weight loss and the production of a hyponatremic alkalosis with digitalis toxicity despite a normal serum potassium value. During this period he appeared to undergo acute hepatic decompensation and shortly thereafter expired. Because so little data were available during the course of chlorothiazide therapy, the diuretic response could not be evaluated except for the first four days and therefore is not included statistically in this report.

Overall impression: Excellent response to chlormerodrin therapy.

E. O. CASE X:

A 66 year old, white female with arteriosclerotic heart disease developed angina four months prior to admission and two months later decompensated, requiring digitalization and salt restriction. An upper respiratory infection precipitated a second attack of acute congestive failure leading to admission. The patient was usually in functional class III but was admitted in class IV. During a nine day course of chlorothiazide therapy a seventeen pound weight loss was observed, with good diuretic response early in the course and a fair one in the later days. Unfortunately, electrolyte determinations were not available.

Overall impression: Excellent response to chlorothiazide therapy.

D. R. CASE XI:

A 51 year old, white female with long standing rheumatic heart disease was admitted in chronic congestive failure, functional class IV. The patient had had a valvulotomy but developed re-stenosis and a second valvulotomy was performed. The latter procedure resulted in significant mitral insufficiency and she rapidly progressed from a class II-III status to a full blown class IV. Over a twenty-four day course of chlorothiazide therapy no protracted diuresis was established and only a moderate weight loss of five pounds was noted. Her clinical improvement however, was significant and she remained in class III. A definite sodium diuresis was noted.

Overall impression: Fair response to chlorothiazide therapy.

F. C. CASE XIII:

A 74 year old, white male with arteriosclerotic heart disease and hypertension was maintained adequately with digitalis and salt restriction at home in functional class II. On three occasions during the year preceding admission the patient violated his low salt diet and each time decompensated requiring hospitalization. On all three occasions he responded promptly to classical therapy. The current admission was prompted by a "coin lesion" of the right lung associated with progression of edema and dyspnea. Intake and output could not be determined due to lack of patient cooperation. Over a seven day course of chlorothiazide therapy a weight loss of twelve pounds was observed associated with a corresponding clinical improvement. At the end of seven days, diuretic therapy was discontinued and the patient observed for two days. An immediate four pound weight gain was noted. A moderate potassium diuresis with a significant chloride diuresis was noted. There were no impressive changes in serum sodium or bicarbonate values.

Overall impression: Excellent response to chlorothiazide therapy.

J. L. CASE XIII:

A 50 year old, white male with arteriosclerotic heart disease during the two weeks prior to admission developed an insidious onset of congestive failure following a minor upper respiratory infection. The patient had not previously been on a "cardiac regimen". During an eleven day course of chlorothiazide therapy a sustained diuresis was established, the output-intake ratio remaining above one even after the first four days. A weight loss of six pounds was noted along with good clinical improvement. Unfortunately, electrolyte determinations were not available in series.

Overall impression: Excellent response to chlorothiazide therapy.

E. K. CASE XIV:

A 72 year old, white female with advanced arteriosclerotic heart disease was constantly in functional class IV at home despite intensive therapy. The current hospitalization was for chronic congestive failure and, after twelve days of intensive classical diuretic therapy with no response, her private physician requested that she be included in our program. The patient was placed on chlorothiazide therapy without any attempt to conceal the identity of the medication. She received seven days of therapy with no response. On the sixth day she developed a cerebral thrombosis and shortly thereafter expired.

Overall impression: Failure to respond to chlorothiazide therapy.

OUT-PATIENT FOLLOW-UP REPORTS

Three of the above cases were followed on an ambulatory basis on chlorothiazide therapy with no attempt to conceal the identity of the medication.

Case I, L. S., has been maintained on 1.0 gram of chlorothiazide twice daily for twenty one days. She is also on digitalis and salt restriction. During this time she has not gained any weight over that recorded upon discharge and clinically she has no dyspnea. The dosage has been reduced to 1.0 gram daily. No untoward electrolyte changes have been produced.

Case II, A. C., has been followed for forty days. For the first thirty days she was taking 1.0 gram once daily. At the end of this period she was three pounds below discharge weight but had developed a considerable alkalosis associated with hyponatremia and hypochloremia. The dosage was reduced to 0.5 gram daily and the clinical improvement has persisted. This patient previously had had rapidly recurring hydrothorax but has not had a significant accumulation of fluid since the advent of chlorothiazide therapy.

Case XI, D. R., has been followed for ninety days on progressively decreasing dosages of chlorothiazide. No untoward effects have been noted and patient has been maintained in functional Class III without parenteral mercurial injections which had been required frequently prior to the onset of this therapy. Numerous serial electrolyte determinations show no significant change in sodium, chloride or bicarbonate levels but a definite, slowly occurring decrease in serum potassium. Digitalis toxicity has not occurred.

COMMENT AND DISCUSSION

The evaluation of the responses to therapy categorized according to the functional class of the patient at the start of therapy is summarized in Table II.

TABLE II

DIURETIC	CHLORMERODRIN				CHLOROTHIAZIDE			
RESPONSE	FUNCTIONAL CLASS							
	II	III	IV	TOTAL	II	III	IV	TOTAL
Failure	1	1	2	4	0	1	2	3
Equivocal	0	3	1	4	0	1	0	1
Fair	0	0	0	0	1	0	1	2
Excellent	0	1	0	1	2	0	1	3

Of the four failures occurring on chlormerodrin therapy, two were refractory to all diuretic measures, one expiring during therapy and one shortly thereafter. One excellent response was noted in a Class III patient with concomitant diabetes and cirrhosis. Nevertheless, this patient expired shortly after therapy was discontinued, presumably due to extensive liver disease aggravated by chronic congestive failure.

No toxic reactions were noted in patients on chlormerodrin therapy. The absence of diarrhea at this dosage level was striking.

Two of the failures observed during chlorothiazide therapy occurred in patients who were refractory to all forms of diuretic therapy. The remaining failure and the equivocal response both represent the same patient during successive hospital admissions. Deterioration occurred in this instance in spite of all measures and the patient eventually expired. Two patients while on this therapy described transitory paresthesias of the lower extremities which may or may not have been toxic manifestations of the medication. Two other patients experienced periods during which they were subject to subjective vertigo, frequently orthostatic in nature. No blood pressure changes were demonstrable in these patients. In no patient did any hypotensive effect occur which could be attributed to chlorothiazide therapy, in spite of the fact that three of the patients were hypertensive. This is somewhat at variance with the findings of Wilkins[5] who noted a hypotensive effect of chlorothiazide in all hypertensive patients, with a more pronounced diuretic effect if these patients were also in congestive heart failure.

(In cases not included in this report we have observed a potentiating hypotensive effect of chlorothiazide when combined with other forms of antipressor therapy as stated by Fries and Hollander.)[6, 7]

The average urinary pH of patients on chlormerodrin therapy was 5-6 while in the group on chlorothiazide, the average was 6-7 with a wide range from 5-9. This is in accord with the paradoxical finding that at different dosage levels chlorothiazide may act as a carbonic anhydrase inhibitor or as a mercurial type agent.[1]

There were no significant effects of chlorothiazide on any of the blood chemistry determinations that were recorded, with the exception of the serum electrolytes. Where a trend was established, it showed a sodium and chloride diuresis with the above noted relative bicarbonate retention. This is in accord with the findings of previous investigators.[1,2,3,4] In three cases metabolic alkalosis was induced, the highest CO_2 value being 36.1 meq/1. In one case (not included in this report) digitalis toxicity was associated with hyponatremic alkalosis despite a normal serum potassium. In three cases definite decreases in serum potassium levels were noted in serial determinations, but in no case did they attain hypokalemic values. Significant electrolyte changes, as reflected in the serum values, appeared only after prolonged therapy at high dosage levels (1.0 grams twice daily with salt restriction).

These findings would indicate the potential dangers inherent in long term therapy with chlorothiazide without close supervision of the patients. A careful watch should be maintained for clinical symptoms of hypochloremic, hyponatremic alkalosis, especially in the presence of salt restriction and/or digitalis therapy.

No toxic reactions were observed in this small group that could be directly attributed to chlorothiazide except for the occurrence of transitory paresthesias in two patients and subjective vertigo in two other patients. These symptoms disappeared despite the continuation of therapy.

The electrolytic effect of chlorothiazide appears to be a significant sodium and chloride diuresis with a lesser, but significant, potassium diuresis. There is an overall relative bicarbonate retention. No impressive serum electrolyte changes were noted except during continuous long term (over fourteen days) therapy on high dosage levels. Intermittent administration of chlorothiazide without a too strict low salt diet probably would decrease the frequency of this complication.

The authors are indebted to Dr. Robert Nesbit, chief pathologist, Hospital of St. Raphael, for making the laboratory tests possible.

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Being of service to others continues to attract
the majority choosing medicine as a career—
Only one fourth plan on general practice—
Medical students' preferences show a definite
shift between freshman and senior years

CAREER INTERESTS AND EXPECTATIONS OF U. S. MEDICAL STUDENTS

Don Cahalan and Patricia Collette, *Chicago, Illinois* and
Captain Norman A. Hilmar, M.S.O., *U. S. Army*

SUMMARY

This is the story resulting from interviews with over 1,000 male medical students in the United States. Ninety-nine per cent expressed satisfaction with their anticipated career. Working directly with patients in a nonsalaried type of practice appealed to the majority. About one-fourth were planning on general practice. Among the specialties, internal medicine was the most popular. Their conception of the financial return from a career in medicine is a fairly realistic one. About one-third were going into debt to complete their medical education. Differences in outlook were discovered between freshmen and seniors.

Just before the end of the 1956 school year, more than a thousand male students in approved medical schools throughout the United States were interviewed concerning their career interests and expectations. Since the schools and the students were selected by modern sampling methods, the students interviewed constitute a representative cross-section of American male students in all four years of the entire group of approved medical schools in the United States.[1] This article presents those findings

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[1] The survey consisted of personal interviews with 1,086 male medical students conducted by the National Opinion Research Center, University of Chicago, in May and early June, 1956. These students were all males who were citizens of the United States and who would not be more than 32 years of age at graduation. This sample of students was drawn by random methods which assured every medical student in the country an equal chance of being included. Two stages were involved in drawing the sample. First, a random sample of 44 medical schools was drawn from the entire list of approved medical schools in the United States after the schools were stratified by regional location, method of financing, and other relevant characteristics. Second, a sub-sample of students in each of the 44 schools was randomly drawn, after stratification by year in school, from alphabetized lists of students maintained by the Association of American Medical Colleges. The wholehearted cooperation of the medical schools involved, and valuable help given by Dr. Dean F. Smiley, Secretary, and Dr. Helen H. Gee, Director of Research for the AAMC, made it possible to achieve a 97.5 per cent rate of completed interviews among the students selected.

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from this study which seem likely to be of special interest to medical educators.

Most medical students in the U. S. appear to be exceptionally well-satisfied with their choice of a profession and to be looking forward with considerable confidence to achieving the particular careers in medicine that they desire. The present study shows that only one per cent would think of other careers that would be *more* satisfying, while more than half of them said, "It's the only career that could really satisfy me." In commitment to medicine as a career, there was little difference in sentiment between those who were just finishing their first year of medical school and those who were ready to graduate.

When students were asked what they expected to like best and to like least about being a doctor, they usually mentioned more things they would like than things they would dislike. The principal career satisfactions anticipated and valued by students revolved primarily around doctor-patient relationships—"helping others, being of service, being useful" or "working and dealing with people."

Potential *disadvantages* of medicine as a career were not stressed by medical students in general. The most frequently mentioned drawbacks were that the doctor's work might interfere with his personal or family life because of long hours and night calls and even these disadvantages were cited by fewer than half of the students. It seems likely that for at least some medical students, such complaints are designed to enhance the prestige of the medical profession in general and do not represent serious misgivings about their chosen vocation. However, as we shall see later many medical students apparently prefer careers which will minimize interference with their personal lives. Most students consistently appeared to prefer those aspects of medical work that were *directly* related to the care of patients. When forced to make a choice, nine out of ten said they would prefer working "directly with patients almost all the time" rather than " . . . to work at medical problems that do not require frequent contact with patients." In rating the relative importance of a number of considerations to be borne in mind in choosing one's specific career in medicine, three out of four students said it was very important to have the opportunity to know one's patients well, whereas only one out of six rated as very important "making a good income" or "being able to establish your own hours of work."

CAREER PREFERENCES AND REASONS

Seven out of eight medical students preferred a nonsalaried type of practice, almost equally divided into those preferring individual independent practice (26 per cent), those preferring individual practice with the pooling of some facilities with other doctors (31 per cent), and those preferring a group practice in a partnership arrangement (30 per cent).

As might be expected, some interesting relationships were found between the outlooks of students and the careers they preferred. Among those who preferred individual independent practice, 79 per cent attributed their preference to their desire to "be my own boss." This represents a substantially greater emphasis on independence by these students than that demonstrated by students preferring other practice situations. In addition, students oriented toward independent private practice were more likely than other medical students to cite as a reason for their career preference the nature of patient contact assumed to characterize the preferred career. Among students who preferred an individual practice with pooled facilities, the most frequent explanation given for their preference was the efficiency or economy of such an arrangement (cited by 72 per cent), desire to "be my own boss" (60 per cent), and the availability of ready consultation with other doctors (33 per cent). Medical students who preferred a *group* practice in a partnership arrangement gave as their main reasons lessened interference with one's private life (cited by 62 per cent of this group), the opportunity for consultation (57 per cent), and the efficiency or economy of such an arrangement (31 per cent). Intellectual stimulation was cited as a reason for their preference by 22 per cent of those students interested in a group practice, but by only a handful (4 per cent) of those preferring *individual* practice with or without pooled facilities.

Among the nine out of ten medical students who preferred some type of private (fee-for-service) practice, the rejection of salaried practice in any form appeared to be based primarily on a fear of restrictions and the limitations that might be imposed upon the way in which a salaried physician would practice medicine. Other reservations about salaried practice were primarily variations on the same theme: e.g., that the relationship between doctor and patient might be unsatisfactory, that the doctor might have little variety in the medical cases he would handle, and that his chances for advancement would be determined by others. These major objections to salaried medical careers were levelled against both salaried *private* practice and salaried practice *for some governmental agency or one of the Armed Forces.*

Most students *expected* to achieve the type of practice they wanted. This was true of five out of six of those who preferred an independent individual practice. However, it was true of only four out of six of the students who preferred a practice with pooled facilities or a group practice. The data show that individual, independent private practice was the career *expected* by many students, who in fact, *preferred* other types of private practice.

MEDICAL SPECIALIZATION

The interests reported by the medical student of 1956 are in keeping with the general trend away from general practice and toward specialization during recent decades. Fifty-seven per cent thought that after their internships and possible service in the Armed Forces, they would be most likely to take a residency, while an additional 14 per cent expected to specialize to some extent. Only 25 per cent expected to be general practitioners.

An analysis of the orientations and values of those who expected to have a general practice showed that these medical students were more concerned than others about doctor-patient relationships, while those who planned to specialize were oriented relatively more toward the "intellectual" aspects of medicine, i.e., science or research or teaching, meeting challenging diagnostic problems, and also toward achieving prestige within the profession.

All students were asked, "If you were to specialize in your practice, what field of specialization do you think you would prefer most? What field . . . do you think you would like the least?" Their responses are presented in Table I.

Table I

FIELD OF SPECIALIZATION	MOST PREFERRED	LIKED LEAST
Internal medicine	30%	1%
Surgery	22	11
Pediatrics	10	5
Obstetrics and gynecology	10	7
Psychiatry and/or neurology	8	13
Orthopedics	2	3
Pathology	2	11
Ophthalmology	1	4
Otolaryngology	*	5
Public health or preventive medicine	*	6
Other specialties	5	27
Can't decide	10	7
	100%	100%

The heavy emphasis upon internal medicine does not appear to be merely a reflection of the preferences of those intending to become non-specialized general practitioners, to whom internal medicine would be a primary concern. Even among those students who intended to take a residency, 30 per cent said they would prefer to specialize in internal medicine.

The reasons given most often by medical students for *preferring* a particular specialty were: the intellectual challenge and the learning opportunity provided by the specialty (cited by 33 per cent), the attractiveness of the subject matter or the aims of the specialty (24 per cent), the quickness or certainty of benefits to patients (18 per cent), comprehensiveness of specialty (16 per cent), a preference for dealing with the type of patients to be treated (14 per cent) and the nature of the practitioner's relationship to the patient (14 per cent). Reasons offered for preferring a certain specialty *least* were generally the obverse of the above—that the given specialty was seen as lacking intellectual challenge (cited by 24 per cent), being uncongenial in subject-matter or objectives (22 per cent), offering little personal contact with patients (22 per cent), or resulting in slow or uncertain benefits to patients (16 per cent).

INCOME EXPECTATIONS AND ECONOMIC OUTLOOK

Three out of ten medical students specified the financial return or economic security as one of the things they expect to like best about being a doctor, and student estimates of the economic rewards in the medical profession indicate why this is so. The medical students' conception of the financial return from a career in medicine is a fairly realistic one when measured against recent data on physicians' incomes, but students as individuals expect to do even better financially than the average. The medical students' estimates of the annual net income of general practitioners 10 years out of medical school averaged out to $14,010; they looked forward to slightly higher incomes for themselves at the same stage in their careers—$14,050 median for those students planning a general practice, $15,280 median for those with an interest in specialization. Four out of five students felt that, after a comparable period of time, they would be earning at least as much as the "average general practitioner" out of medical school 10 years, and only one student in eight expected to be making a net income of less than $10,000 at that stage of his medical career.

The income expectations of the medical student were related to his year in medical school and the type of practice he contemplated. Senior students, looking ahead 10 years, estimated their annual net income at $16,230, or almost $2,000 more than did freshmen when they looked ahead 13 years. Senior students planning a general practice anticipated incomes with a median almost $3,500 more than their freshman counterparts. In each of the first three classes of medical school, students with an interest in specialization expected higher incomes 10 years after graduation than did students with general practice plans. However, among senior students, the reverse is true—senior students with general practice intentions anticipated $16,280 incomes 10 years out of medical school while those seniors expecting to specialize some or planning on a residency estimated their income (10 years after gradution) at $16,000. This reversal may reflect on the part of seniors a more realistic awareness of the prolonged low income period usually entailed in preparing for specialization; our data do not permit us to test the validity of this explanation.

The confidence medical students felt about their short-range, financial prospects carries over into their long-range expectations. As a group they anticipated annual net incomes when their careers are at their height, which are 50 per cent greater ($22,340 median) than the earnings they expect when they have been out of medical school only 10 years. Only one student in a hundred predicted he would be making less than $10,000 at the peak of his career. Long-run income expectations appear to be subject to the same influences as short-run expectations—seniors anticipated peak annual incomes averaging about $2,000 more than those expected by freshmen; students planning to specialize anticipated peak annual incomes about $3,000 more than the incomes expected by students planning on general practice.

Almost half of the medical students reported earning some money during the course of the school year, but these earnings usually are modest, averaging about $64 a month. The proportion of students earning money during the school year increased steadily from the first year on—from one freshman in four to two out of three seniors—reflecting, in all probability, increased opportunities for employment available to upperclassmen and increased financial pressures exerted upon them by family obligations and prolonged cost of schooling. Not only do more seniors than freshmen work, but the seniors' average monthly earnings ($85) are more than double those of the freshmen (a quarter of the senior students earn an average of $100 or more a month during the school year).

Going into debt during the course of acquiring a medical education is not infrequent according to medical students enrolled in school in 1955-56. One out of every three students (and almost half of the seniors) reported that he would be in debt or would feel under financial obligation to someone at the end of the 1955-56 school year. The amount students report they will have to "repay sooner or later" increases steadily from the freshman year straight through to the senior year. Among students who reported being in debt at all, freshmen reported a median debt of $1,280 while seniors reported a median debt of $2,800. In view of these differences between classes in current indebtedness, it is worth reporting that there were *no* important differences between classes in the proportions anticipating financial difficulties in getting established in their medical careers. Getting along financially until they get established in practice was expected to be "very difficult" by 12 per cent of all students, as "fairly difficult" by 64 per cent, and as "not difficult at all" by 24 per cent.

OTHER DIFFERENCES IN PERSPECTIVE BETWEEN FRESHMEN AND SENIORS

The study revealed certain differences in outlook between students in their first year in medical school and those in their senior year. In the absence of any evidence to the contrary, these differences are assumed to reflect the impact of four years in medical school rather than possible differences in the backgrounds of those respondents who were freshmen and those who were seniors. The backgrounds of students in the various classes appeared to be quite similar.

A definite focusing of career interests seems to take place between the time students enter medical school and the time they graduate. For example, significantly more seniors than freshmen said they were "not at all interested" in even part-time medical research or medical administration during their medical careers. Furthermore, *fewer* seniors than freshmen evinced any interest in even short-term work with Federal medical agencies.

Perhaps the most notable differences between freshmen and seniors concerned the type of medical practice they preferred. As was demonstrated earlier, students in all four classes overwhelmingly favored one of the traditional forms of nonsalaried practice as opposed to any form of salaried medicine. However, more freshmen (33 per cent) than seniors (22 per cent) preferred to go it alone in individual private practice without pooled facilities, while more seniors (39 per cent) than freshmen (22 per cent) preferred a group practice in a partnership. In view of these differing career orientations, it is perhaps not surprising that two-thirds of the seniors but fewer than half of the freshmen said they were likely to take a residency in some specialty.

Seniors differed from freshmen not only in *what* they wanted to do, but also in *why* they preferred one type of career rather than another. For example, among those who preferred group practice, substantially more of the seniors (79 per cent) than the freshmen (47 per cent) cited as a main reason the belief that group practice would involve less interference with their personal, private lives than would other types of practice situations. Freedom from interference with one's private life is essentially an *extrinsic* or *situational* consideration, which is not related to the purely professional task of the physician. Other findings also indicate that senior medical students, when they evaluate the merits of a given career, tend to place greater emphasis than do freshmen on the *extrinsic* rewards involved. For example, seniors were more likely than freshmen to say that in deciding on a medical career for themselves, the following factors were very important considerations: "being able to establish your own hours of work;" "making a good income;" and "having prestige within the medical profession."

It seems likely that differences in perspective between freshman and senior medical students are at least partially brought about by a growing level of sophistication about the "realities" of various medical careers acquired by the student in the course of his medical education. As he progresses through medical school, he is exposed to the attitudes of his peers and especially of his professors—attitudes which may cause him to lose interest in *some* medical careers and to look with increasing favor upon others. By the time the medical student is a senior, the imminence of his choice of his own career would logically lead him to scrutinize carefully the relative merits of various careers in terms of his *own* wishes and also the wishes of those dependent upon him. (More than half of the 1956 seniors in this sample were married, as compared to only 21 per cent of the freshmen).

It is manifest that during the student's four years in medical school, his initial enthusiasm and somewhat unselective interest in a broad range of medical activities becomes progressively tempered—and narrowed—by the attitudes and information to which he is exposed. The data provided by this study may help medical educators to anticipate trends toward serious shortages or surpluses of physicians in various medical career fields as well as in particular medical specialties.

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EDITORIALS

Labor and the Forand Bill

In a recent talk to the New Britain Medical Society, the Education Director of the Connecticut State Labor Council, AFL-CIO, spoke in favor of the so-called Forand bill (HR 9467). This bill which proposes to amend the Social Security Act to initiate hospital, nursing care and surgical payments for persons eligible for retirement or survivorship benefits under OASI, is opposed by the Connecticut State Medical Society and the American Medical Association for reasons noted on "The President's Page" in the March issue of the Journal.

She stated unequivocally, "Hospital and surgical insurance does not meet our health needs. We look to the future when all health needs will be taken care of by comprehensive prepaid service plans. We are concerned about *service not financial reimbursement* (italics ours, Ed.) We are concerned about prevention, diagnosis, early detection of serious illness, as well as care and treatment when we become ill. We think these objectives are not fully met by Blue Cross, Blue Shield and by commercial carrier health insurance. . . . With this end in view, we support voluntary medical service plans (comprehensive prepaid medical service)."

At the conference of one thousand AFL-CIO leaders in Washington earlier this year passage of the Forand bill was urged on every Congressman by rank and file delegates who visited them personally. The House Ways and Means Committee was urged to hold hearings on social security legislation no later than April to permit enactment this year. Stress was laid on the arguments that the current recession was causing older persons to lose jobs, private pension rights and the support of relatives, that rising rates of Blue Cross, Blue Shield and commercial insurance coverages were forcing out even those older persons who might have this coverage, and that public assistance was inadequate to carry the load.

Dr. Eugene Forsey, writing recently in the "Canadian Doctor", stated that organized labor in that country does not believe that existing voluntary insurance plans fill the bill. It wants a comprehensive national health insurance system, and nothing else, with a national minimum standard of service and no overemphasis on hospital care. He said, "We are not afraid of asking our governments which we choose and can control to provide for us services which no one else can," and added that physicians should be amply rewarded for their skill and devotion, but no group of people can safely be trusted with absolute power to say what they should be paid. The consumers must have an adequate voice in such decisions.

This brief recapitulation of only a few of strong statements being heard more frequently today from this most important segment of our population may well give pause to those whose voices have been raised most loudly against attempts made within the profession to control or regulate fees and to provide wider segments of the working population with complete coverage of surgical expense under service benefit contracts. Medicine can maintain its strong bargaining position only by a realistic appraisal of today's needs and these demands, not by reverting to that outworn and somewhat irrational argument that determination of the fee by a third party disturbs the essential doctor-patient relationship.

The Physician of the Future

The interesting study, "Career Interests and Expectations of U. S. Medical Students", reprinted in this JOURNAL, records statistically many trends in the attitudes of medical students toward their futures which have long been apparent to those in daily contact with them.

As the authors have demonstrated, 78 per cent of the graduating students look forward to a professional life in which responsibilities or facilities are shared. Under these circumstances, some form of group practice or partnership in which expenses and income are also divided is inevitable. Whether we like it or not, this is likely to be the pattern of medical practice of the future in all except the most rural and isolated communities.

These economic trends cannot be dissociated from the tendency of young physicians to be attracted to specialization. Which is the cause and which the effect is immaterial; specialization and cooperative practice are advancing in unison and are not likely to be reversed.

It is encouraging to observe that at least half the students plan to enter either general practice or internal medicine because it is from these two groups that the family physician of the future will be drawn. Another 10 per cent are planning to become pediatricians and will, in many instances, be the family contact with medical service. These two specialties are now absorbing many of those who, in previous generations, would have been general practitioners. The satisfaction of continued association with their patients is retained, yet the demand that they become competent in surgical as well as medical knowledge and skills is avoided.

Although medical schools are frequently accused of failure to convey to their students the economic facts of life, the financial expectations of these young people are remarkably realistic. They differ little from others of their age group in the expectation of financial security but it is equally obvious that few anticipate more than a comfortable income.

The capacity of medical faculties to influence the career choice of their graduates is grossly overrated. The most we can expect is that they will turn out young men and women with good characters and high ideals who have been exposed to the most advanced theories and the best practices that medical science has to offer and possess a sound foundation for further study and training. Social and economic factors within the medical profession and in the community are probably more significant in determining the choice of careers than the advice of faculty members whose opinions on such problems are often divergent. These young physicians are intelligent, aware of the opportunities and, by the time of graduation, mature. They can be relied upon to arrive at intelligent and balanced decisions concerning their futures and coercion is neither indicated nor likely to be effective.

Preventable Perinatal Death

In this issue the Journal institutes a monthly report of an illustrative case or cases representing a common problem in the perinatal period.

The cases will be selected by The Committee on Perinatal Morbidity and Mortality of the Connecticut State Medical Society and will be devoid of any identification. It should be stressed that dates, hospitals, names of physicians and other data of extraneous nature will be avoided.

The function of the Committee and the sole purpose of these reports is educational.

In instances in which the Committee has discussed the case and found evidence of preventable factors, this will be noted with the reasons for the decision. The term "preventable" as used in perinatal mortality investigation implies that the method of procedure on the part of the responsible parties was not in full accord with accepted practice. It does not imply that the baby would have lived had it been done otherwise; it simply implies that there is reasonable doubt that it was done in the best manner. To illustrate the point more clearly let us assume that a pregnant woman has had no prenatal care and comes to her physician literally in early labor. He finds she has toxemia. During labor she has difficulties which in turn lead to severe fetal distress, and ultimately neonatal death. The committee would call this a "preventable death" due to family irresponsibility in failing to obtain prenatal care. Obviously it cannot be proven that prenatal care would have saved this baby, but it is reasonable to assume that the family did not follow current medical practices which have been shown to reduce the danger to mother and baby.

Forced Education

The obvious defects of our educational system have been brought more consciously to our attention by the success which the Soviet Union has enjoyed in developing and launching earth satellites. Comparisons with other European systems of education, as well as the Russian system, have been forced upon us. Suddenly we, who have conceived of ourselves as being in the forefront of educational and scientific achievement have been made to feel inferior. Many are asking "What do they have in education for science which we don't have, and how can we get it?"

It has been assumed that because in this one particular field of rocket and missile development the Soviets have taken the lead, that they have thereby demonstrated a superiority in all scientific achievement and, therefore, presumably more techniques and methods of education and science. The number of students in schools of engineering has been repeatedly cited as evidence that it will be only a short time before the world is overwhelmed by Russian scientific advance. Because of the obvious military importance of guided missiles, we cannot take these achievements lightly.

Recent reports of scientists from this and other countries who have visited the Soviet Union, however, including a considerable number of physicians, have presented a picture of Soviet scientific development and education which indicates that some of this achievement may have come about in spite of rather than because of the system, and that all of it has been accomplished by sacrifices of what we conceive to be fundamental liberties which we are not prepared to surrender. The United States Office of Education report of its two year study of Soviet education is particularly enlightening in this regard.

Higher education in Russia has only one objective, to serve the political, military and economic goals of the Soviet Union. Political indoctrination pervades all levels of instruction, increasing with each step until it may consume from 1,000 to 1,300 hours a year. Quotas are set for the numbers of students in each field and special devices arranged to discourage or encourage various specializations. The student who reaches the age of eighteen without being enrolled in an institute of higher education is drafted for military service and can no longer be accepted for higher education. Diplomas are mailed to the future employers of the students and are not given to them on graduation.

Where the Soviets lead is in the field of practical applications of basic discoveries in mathematics, physics and chemistry to engineering problems, particularly in the development of nuclear weapons, missiles and aeronautics. Practically everything else is sacrificed to these developments and the economic resources of the state as well as its manpower are ruthlessly employed toward these goals with no regard to the individual consequences. No one knows how many of these so-called "engineers" who have trained in such large numbers (and many of them in very narrow fields) are actually engaged in engineering work.

The Russians are still dependent for the majority of their basic scientific information on the discoveries of scientists of the free countries of the world. By means of a massive program of collecting, sifting and coordinating this information, they have been able to take advantage of such discoveries in many instances before they are generally known throughout the free world. By insisting on plain, hard drilling on fundamentals in elementary and high schools, they are producing students capable of dealing with facts which in this country are considered too advanced for anyone below college or graduate school level.

One factor which has made this country great among the nations of the world is its flexibility. Since this is based on a free economy, it requires a corresponding flexibility in the educational processes to produce the men and women who will be able to exemplify this ideal throughout changing world economic conditions. If we train 100,000 engineers a year for a potential 50,000 jobs, we will accomplish nothing but a dislocation of our economy. If on the other hand we cannot train enough to meet our requirements, whatever they may be, and provide a training which will be broad enough to allow them to adapt to the changing environment of science during the years we expect them to be active, then we are in danger of losing the freedom in education (as well as everything else) that we are striving to protect.

The following editorial written by Robert Irving, son of Dr. J. Grant Irving, medical director of the Aetna Life Insurance Company, appeared in a recent issue of The Loomis Log. *In addition to being a strong argument against socialized medicine, well written, it exemplifies at least some of the thinking of the men of tomorrow. The editor is privileged to reprint it for our readers.*

Socialized Medicine?

A recent nationwide television program, featuring an hour-long interview with former President Harry S. Truman, focused attention on one of the most controversial issues of our era. The ex-chief of state declared that one of the greatest regrets of his career was his failure to institute a national program of governmental medical care. Advocates such as Mr. Truman, of government in medicine, describe it in glowing terms. "It is the moral obligation of a civilized nation," they maintain, "to care for the poor, aged, infirm, and mentally ill." Discarding reason, they talk as if only the State could discharge this obligation.

In the United States, a widespread public complacency reflects lack of serious thought as to the possible consequences of socialized medicine. The trouble of the matter is that one hears so much about the benefits to be reaped and so little about the costs—the enormous expenditures necessary to maintain such a system. We would do well to be guided by the alarming experiences of other nations who have mixed politics with medicine.

The fact remains that without exception, government-controlled medical programs have cost more than was ever anticipated. In Great Britain demands for free care and for often unnecessary medical items trebled the yearly budget over a period of four years. The man who foots the bill—the taxpayer—had his already prohibitively high taxes increased 12 per cent.

The harmful effects of such a system are widespread. Waiting lists for admission to free hospitals become overwhelming. The result of the enormous influx in numbers of patients is second-rate care for a great many as opposed to first-rate care for those who are truly ill. Funds for research or preventive medicine become non-existent as a direct consequence of the cost of caring for those who pretend in addition to those who are ill.

One of the features of socialized medicine is that it includes support for the family as well as government care of the sick. This support usually approximates the laborer's daily wage. The temptation to be continually sick, especially for people in low income brackets, is obvious. Many persons want to be sick, or sicker than they actually are, because of the material benefits involved in liability payments and compensation.

Experience with socialized medicine in other countries reveals some other dismaying facts. Overcrowded hospitals create near-impossible situations, doctors get so over-worked that their patients receive less and less real treatment, the cost of drugs becomes astronomical, the total cost of the social system soars, and, lo and behold, the government calls for investigations. Accusations are flung right and left—the doctors are accused of being high-handed, the druggists are accused of charging too much for the pills, and even the people are charged with being too sick. And so the stage is set for the gradual advent of police controls, which one prominent writer has called "the last refuge of self-bankrupting, socialist planning."

There are a great number of reasons why doctors are so strongly opposed to socialized medicine. As individuals, they detest the regimentation that is necessary and therefore inevitable under this socialistic system. They feel that treatment of a number will replace treatment of a human being, that initiative, research, and humane care of the ill will be replaced by complacency and robot dispensing. Finally they feel that giving inferior drugs to increase their own profit, or performing less than the very best because the pay was predetermined, is beneath the dignity of the profession. Every one of the shortcomings mentioned exists in every one of the presently functioning systems of socialized medicine.

We must not allow ourselves to think that our fate is inexorable, that inevitably we shall become weak and dependent wards of the State. If our youth are deprived of the necessary incentive to dedicate their lives to the art of healing, our diseases will be treated by automatons and our health will deteriorate. Our students will refuse to enter this noble profession except by edict if the important work in the field of medicine is minimized or even denied by political quacks. We shall have only ourselves to blame for inferior physical and mental health if we eventually accept all of these proven evils as a system of government and a way of life.

PROGRESS IN CLINICAL MEDICINE

ORTHOPTICS IN RELATION TO MEDICINE

Harold C. Patterson, m.d., *Danbury*

This is the fifth of a series of papers to acquaint medical colleagues of ophthalmologists with recent advances in the care of the eyes. These discussions should be of interest to the profession as a whole. They are intended to be brief and are written in such a manner as to be understood by the general practitioner, pediatrician, internist, surgeon or psyhhiatrist. Many of these are problems which the medical doctor must try to consider in formal or informal consultation for patients and often for members of his own family.

What is orthoptics? What is an orthoptic technicians' training? Do we send our patients directly to orthoptic technicians? How available is orthoptics for our patients? How extensive and how expensive is it for our patients? What age children benefit most from orthoptic training? What is the ultimate goal in any extended period of orthoptic training? What is fusion and how important is it? These and many more questions have been put to me by nonophthalmological colleagues who, no doubt, have had the same question put to them by their patients. Having had the services of an orthoptic technician in my office for the past five years and having had a moderate variety of different orthoptic problems, I wish to set forth my observations which I hope may clarify some of these questions.

Orthoptics is the science of rendering the visual impressions and responses right and efficient. These measures are achieved by some form of exercise or training which include the treatment of amblyopia, the relief of usual stress created by some muscular imbalance as well as the education of fusion and stereopsis.

The Author. *Attending Ophthalmologist, Danbury Hospital; Assistant Clinical Professor of Ophthalmology, Yale University School of Medicine*

SUMMARY

Orthoptics is defined. Children up to the age of five years are not good candidates for active orthoptic training. Between five and seven years of age the best results are attained. After that age the beneficial results drop off rapidly. Fusion with stereopsis is the ultimate goal in orthoptic training. This we feel is desirable but by no means essential to a useful and happy life, especially to one that has never experienced it. If fusion does not come readily with a moderate amount of orthoptic training, then I feel that neither the patient nor the technician is justified in persuing a long rigorous course of questionable value and results.

Much of this work is technical and may be carried out by an orthoptic technician who works under the supervision of and in association with an ophthalmologist. To qualify as an orthoptic technician, a girl must be eighteen years of age, have at least two years of college, attend a two month didactic lecture course on orthoptic principles from a medical ophthalmologic center, and then serve one year apprenticeship under the supervision of a certified orthoptic technician. By passing an examination set up by the American Orthoptic Council she may become a certified orthoptic technician. Now she is permitted to work as a medical auxiliary when sponsored by an ophthalmologist. The orthoptic technician can be of valuable assistance to the opthalmologist by relieving him of many detail functions in the measurement for diagnosis of the condition. Time can be spent by the technician with the parents explaining the difficulties and in showing them and their children a procedure to follow during their treatment period. Usually these procedures are time consuming and tedious although fairly routine.

At the present time there are only three orthoptists working in the State, two of these are in clinics and the other is in a private office. Thus it may be difficult in some parts of the State to find active orthoptic training available for those individuals who might be benefited from it. This should also make one selective in the cases that he feels can be benefited by such treatment.

Orthoptic training seems to have its greatest appeal to parents of children having a manifest deviation of their eyes. The parental desire that the offspring be free from cosmetic blemish will frequently demand that something be done immediately. If operation is not advisable and it frequently is not at a very early age, then a passive form of orthoptics may be initiated, and it may be found quite beneficial.

Patients as early as six months of age showing a deviation of the visual axis or having a discrepancy in the visual function should be referred to an ophthalmologist for an evaluation of the difficulty. A passive form of orthoptics may be inaugurated if no pathologic cause for the deviation is noted. By passive orthoptics, I refer to objective measures of treatment such as occlusion of one eye to make sure that the macular region of the deviating eye receives the image of the object regarded. Periodic alternation of the patch to the eye that seems to be the dominant eye when the two eyes are exposed to a light not only keeps ambloyopia from setting in, but also prevents the deviating eye from developing a false projection center of vision. (An anomolous retinal correspondence). This faulty correspondence creates a great deal of difficulty when trying to re-educate the eyes to work together when active training is to be started. The child also has a better chance of using the two eyes together when operation corrects the alignment.

Before an active training can be initiated, a child has to reach the stage of cooperation where he is able to respond honestly and subjectively to the visual impression he receives. This varies with the individual, but is seldom before five years of age. Between five and seven then are the best years for active orthoptic stimulation and training. After that age the visual pattern becomes so integrated that the response rapidly diminishes and one encounters diminishing returns for his efforts.

It must be remembered that any orthoptic training is not likely to be successful unless there is complete cooperation between the parents, the children and the orthoptist. To help in this respect is a strong will on the part of the recipient to achieve the desired results. It also helps to indoctrinate the parents to the correct psychologic approach to the child's problem as well as to the physical changes taking place in the child's seeing. The office of the technician becomes a direction center for the home treatment which usually has to be carried out daily. Usually one can not tell whether beneficial results in the way of fusion are to be achieved from a pair of deviating eyes unless a trial training period is given. This trial period usually consists of about six sessions in which intensive stimulation has been carried out. These sessions may last an hour or longer with the average cost to the patient of about $25.00. After this trial session the responses are evaluated and it is decided in consultation with the ophthalmologist whether it is wise to embark on what may be an extended tour of training which may last for a few years in certain types of cases or whether for many reasons it might be wiser to let alone. If it should be decided to go on, the intensive lesson sessions at first are diminished in frequency and after a short period they may be reduced to once a month.

Periodic checks are necessary to note the progress and direct the homework until the ultimate goal of single binocular vision with depth perception is achieved.

Fusion is the psychologic interpretation of a single object perceived on each retina, then transmitted to the fusion center in the occipital lobe where it is reassembled to give the impression of a single object again as it is projected back into the original space from which it came. This gives a spacial position to the object of regard known as stereopsis. Anything along the line of this route that might interfere with the passage of any part of the perceived rays of light interferes with fusion and the third dimension calculation. The deviation of the visual axis may exist to such a point that the perceived rays of light from the object do not fall on corresponding parts if the retina causes dissimilar stimuli to be sent to the interpreting centers. This gives the following reaction, a blur if there is a very small deviation, partially overcome by fusion; double vision if noncorresponding points of the retina are stimulated; suppression of vision in the macular region of the eye that deviated, and an ambloyopia when the deviation begins in an infant that has fairly constant angle of squint. Assuming that the eyes are turned because of an anatomical variant, then correcting the deviation gives the visual impression a chance to fall in such a position that fusion may take place if the stimulation is directed at the right spots. If there is some defect in this complex system in the higher center of perception then training is of no avail. If no defect is present then simultaneous stimulation of both eyes may awaken the fusional center. If the desire which is inherent is strong enough to bring about fusion, then a single binocular vision is attained. By orthoptic training the fusional desire may be increased to the point that a varying degree of deviation can be overcome and the eyes held straight. The angle of deviation is not decreased by orthoptic training; only the fusional desire which is a psychic reflex is increased and the eyes are held straight by a conscious desire for fusion.

Is fusion necessary? The average individual that has never had fusion would not be aware of any handicap or discrepancy in his visual function, unless it was called to his attention. He has learned other clues for his judgment of distance such as parallelax and the relative size of objects. However, he will not have the advantage of stereopsis, but again his judgment may be as good as some that do. If fusion does not come rather easily after the impediments such as ambloyopia, suppression, and deviation have been removed, it seems rather foolish to spend part of one's life pursuing something which adds so little to one's function. One who has had good fusion and suddenly is deprived of the use of one eye finds it difficult for a while to adjust, but with time he usually adapts fairly well. An individual that has had fusion and is suddenly unable to adequately maintain it is greatly disturbed until he can develop a suppression. If the suppression does not come, then he is happiest with one eye occluded. In children this suppression develops very easily, as does the amblyopia. A mature individual is less likely to develop either and consequently, if he does not, his coordination and equilibrium are impaired, the visual state of confusion can naturally give way to an anxiety and finally to a fixed neurosis.

OUR NEIGHBORS

New York

Howard C. Taylor, Jr., will become dean of Columbia University Faculty of Medicine and College of Physicians and Surgeons on June 30 when Willard Rappleye retires. Dr. Taylor is well known as a leader in the field of gynecology and obstetrics.

The Department of Mental Hygiene of the State of New York shows a decline in the residual population of the state hospitals which is attributed to the large-scale use of the tranquilizers, of which chlorpromazine now constitutes about 75 per cent. The fall seems to be most evident in residual schizophrenic population and in addition there was an outstanding reduction in the use of restraint and seclusion. The need for mental hospital beds, however, will not be lessened according to this survey.

Rhode Island

The Rhode Island Medical Society has decided not to enter into any contract with Medicare for 1958-1959.

Vermont

The Vermont State Medical Society and the University of Vermont College of Medicine will sponsor an all day alumni meeting on May 15 at the Mary Fletcher Hospital in Burlington.

Vermont State Medical Society Receives Bequest

"To VERMONT STATE MEDICAL SOCIETY, a corporation of the State of Vermont, the sum of one hundred thousand dollars ($100,000), to be kept as a permanent fund to be known as the Edward Daniel's Faulkner and Marianne Gaillard Faulkner Fund and the income only to be used (a) for the relief of pecuniary distress of sick or aged members or the parents, widows, widowers, or children of deceased members, and (b) for the relief of pecuniary distress of members resulting from catastrophic natural causes."

THE SECRETARY'S OFFICE

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SPECIAL MEETING OF THE COUNCIL

A special meeting of the Council was held at the offices of the Society on March 20, 1958 commencing at 3:00 in the afternoon. There were present, the Chairman, Dr. Gallivan, Doctors Walker, Russell, Johnson, Barker, Weld, Danaher, Gibson, Feeney, Fincke, Clarke, Buckley, Otis, Archambault, Ottenheimer, Seigle, Meyers, Gardner, Gilman and Starr. Absent were Doctors Ogden, Ursone, Schiavetti, Gens, Dwyer and Thayer.

The purpose of this meeting was to discuss recent actions by the Fairfield, Hartford and New Haven County Medical Associations relating to Connecticut Medical Service and to arrange the agenda and objectives of a special meeting of the House of Delegates of the State Medical Society that the President has called, on petition as provided in Article VIII, Sec. 3, Par. 3 of the By-laws of the Society to be held at the Hotel Bond, Hartford on Tuesday, March 25, 1958.

Dr. Danaher was invited to speak concerning events that have lead up to the present circumstances of protest concerning Connecticut Medical Service and the Society's relation thereto that have been expressed in special meetings of the County Medical Associations in Fairfield, Hartford and New Haven Counties. Dr. Danaher did this briefly with the observation that most of those present were already informed on the subject.

The Chairman of the Council, Dr. Gallivan, then presented a report of the background of the development of Connecticut Medical Service and certain statements of policy that had been adopted by the House of Delegates from time to time with particular reference to action taken by the House of Delegates on December 9, 1948. Following this the Chairman presented for discussion four recommendations that were proposed to be introduced by him at a special meeting of the House of Delegates to be held on March 25th next. These recommendations were discussed at length and amended at four or five points. In their amended form they were adopted by the Council and it was voted that the Chairman present them and the historical review preamble noted above to the House at the meeting on March 25th.

During this discussion the question was raised why a report submitted by the Committee on Third Party Payments was not presented to the House of Delegates at its Semi-annual Meeting on December 11, 1957. Dr. Danaher explained why the report was withdrawn and not presented, the reason being that it was felt that the report at that time was premature and should be postponed to the Annual Meeting of the House of Delegates in 1958.

Dr. Gibson, Speaker of the House, was invited to take the chair and outline to the members of the Council the agenda he proposed to follow at the special meeting of the House of Delegates on March 25th. In discussion of this Dr. Gibson referred to an illustrated presentation that Dr. Danaher had asked to make for the House explaining the details and anticipated operation of the controversial Connecticut Integrated Contract that Connecticut Medical Service had developed and wished to offer. The desirability of such a presentation was discussed at length in all of its aspects and it was finally concluded that it not be a part of the formal agenda of the forthcoming meeting of the House.

It was then agreed that the agenda for the meeting should be as follows:

1. Roll Call
2. Call of the Meeting
3. Remarks by the President
4. Report of the Chairman of the Council and

Presentation of the Recommendations noted in item 2 of these minutes.

5. Other business.
Under this item an opportunity would be given for the presentation and discussion of resolutions that had been passed by the special county association meetings in Fairfield, Hartford and New Haven Counties.

It was mentioned that upon the conclusion of these items of business that the explanatory presentation proposed by Dr. Danaher might be given.

Dr. Gibson continued and with the Secretary explained that seating arrangements for the Special Meeting of the House would divide space allotted to members of the House of Delegates from a separate area for observers and guests. This was approved.

A recommendation from the Committee on Public Relations concerning "the present controversy over the new Connecticut Medical Service Connecticut Contract, Integrated," was presented including the suggestion that it be transmitted for action to the Special Meeting of the House of Delegates "if that would be in order". After discussion it was voted that "The proposals made in the recommendation were deemed incompatible with the purposes expressed in the petitions received from the Fairfield County Medical Association and the New Haven County Medical Association which were the basis of the call for the special meeting."

The Secretary presented items of routine business:

Confirming the nomination of Dr. William Glass, Bridgeport, to the Committee on Eye Care.

Dr. Dana L. Blanchard, Branford, was nominated to be a member of the Conference Committee with the Connecticut Pharmaceutical Association.

At the suggestion of the Chairman of the Committee on Industrial Health Dr. George F. Martelon, Bridgeport, was nominated to be a member of that Committee.

A report of the Committee on Postgraduate Education recommending that the Clinical Congress for 1958 present a one-day program at the Hotel Statler, Hartford on November 5th, was adopted.

The resignation of Thomas J. Danaher from the MEDICARE Committee of which he served as Chairman was accepted with regret and on nomination of Dr. Feeney, seconded by others, it was voted that Harold M. Clarke, New Britain, be named the Chairman of this Committee. The Chairman of the Council was authorized to appoint a new member to the Committee to fill the vacancy left by Dr. Danaher and later Dr. Gallivan directed the Secretary to invite Dr. Albert L. Herrmann, Waterbury to become a member of this Committee.

It was voted to rescind previous action to hold a meeting of the Council on March 26th and it was left to the Chairman of the Council and the Secretary to determine the date for a meeting of the Council to be held in April.

The meeting adjourned at 7:15 P.M.

Meetings Held in April

2 Committee on Industrial Health
Connecticut Medical Examining Board
8 Committee on the American Medical Education Foundation
9 Committee on Maternal Mortality & Morbidity
Conference Committee with the Connecticut Dental Association
10 Committee on Public Health
11 Presidents Committee on Connecticut Medical Service
14 Committee on Eye Care
16 Committee on Perinatal Morbidity & Mortality
Nominating Committee
Council
17 Conference Committee with the Connecticut Pharmaceutical Association
23 Committee on Toxemia
29 Annual Meeting of the House of Delegates
Committee on School Health
30 166th Annual Meeting of the Society

Membership Report of the Secretary

FAIRFIELD COUNTY

Membership—January 1, 1957			783
New Members		48	
Less:			
Deaths	9		
Resignations, transfers	2		
Non-payment dues, etc.	2	13	
		—	
Net Gain		35	
Membership—December 31, 1957			818

HARTFORD COUNTY

Membership—January 1, 1957			918
New Members		78	
Less:			
Deaths	8		
Resignations, transfers	7		
Non-payment dues, etc.	4	19	
Net Gain		59	
Membership—December 31, 1957			977

LITCHFIELD COUNTY

Membership—January 1, 1957			130
New Members		4	
Less:			
Deaths	1		
Resignations, transfers	2		
Non-payment dues, etc.	0	3	
Net Gain		1	
Membership—December 31, 1957			131

MIDDLESEX COUNTY

Membership—January 1, 1957			107
New Members		9	
Less:			
Deaths	3		
Resignations, transfers	1		
Non-payment dues, etc.	0	4	
Net Gain		5	
Membership—December 31, 1957			112

NEW HAVEN COUNTY

Membership—January 1, 1957			892
New Members		41	
Less:			
Deaths	17		
Resignations, transfers	26		
Non-payment dues, etc.	2	45	
Net Loss		4	
Membership—December 31, 1957			888

NEW LONDON COUNTY

Membership—January 1, 1957			174
New Members		4	
Less:			
Deaths	4		
Resignations, transfers	3		
Non-payment dues, etc.	0	7	
Net Loss		3	
Membership—December 31, 1957			171

TOLLAND COUNTY

Membership—January 1, 1957			20
New Members		2	
Less:			
Deaths	0		
Resignations, transfers	1		
Non-payment dues, etc.	0	1	
Net Gain		1	
Membership—December 31, 1957			21

WINDHAM COUNTY

Membership—January 1, 1957			64
New Members		5	
Less:			
Deaths	1		
Resignations, transfers	5		
Non-payment dues, etc.	0	6	
Net Loss		1	
Membership—December 31, 1957			63

ASSOCIATE MEMBERS

January 1, 1957		11	
Less Deaths		0	
Associate Members—December 31, 1957		11	
Total Society Membership—January 1, 1957			3088
New Members			191
Total Membership—December 31, 1957			3279
Less:			
Deaths	43		
Resignations, transfers	47		
Non-payment dues, etc.	8		98
Total Society Membership—December 31, 1957			3181
Net Gain for year	93		

TOTALS

Fairfield	818
Hartford	977
Litchfield	131
Middlesex	112
New Haven	888
New London	171
Tolland	21
Windham	63
	3181
Associate Members	11
	3192

THE HISTORIAN'S NOTE BOOK

THE CONNECTICUT MENTAL HYGIENE SOCIETY

Elias J. Marsh, m.d., *Hartford*

On May 6, 1908, fourteen persons met in the New Haven home of the Rev. Anson Phelps Stokes and founded the Connecticut Mental Hygiene Society. It was the beginning of a citizens movement in the mental health field in the nation and the world.

The prime mover of the little organization was Clifford W. Beers, a citizen of Connecticut and graduate of Yale. Beers, who knew well the torments of mental illness and who had observed as a patient in private and public institutions for three years the bleak inadequacy of facilities, repressive custody and lack of active treatment, was elected the first executive secretary of the Society.

On the 25th anniversary of its founding, C.E.A. Winslow, professor of public health at Yale, summed up the essential character of the movement, saying:

"The group that met in New Haven extended their vision both in space and time.

"They visualized, not a single patient, but a whole community; and they considered each member of that community as an individual whose mental and emotional status was determined by definitive causative factors and whose compelling need was for prevention rather than cure."

The philosophy of Professor Winslow is as valid now, when we observe the golden anniversary of the founding of the mental health movement, as when it was uttered.

The inspiration and influence of Beers and the movement he founded have contributed significantly to the leadership which Connecticut has supplied in mental health. In 1920 there was established the Bureau of Mental Hygiene in the Connecticut State Department of Health, the first such agency in the country.

Ten years before that the Society (today the Connecticut Association for Mental Health) financed in New Haven the first psychiatric outpatient clinic in Connecticut and one of the first in the country.

Were he alive, Beers would thrill to the progress and promise of the present. We are learning the lesson of community care and treatment of the mentally ill person, in the clinic and in the general hospital.

Chemotherapy has proved a help. We are striving to open our large mental hospitals in a movement away from the custodial emphasis. People from the community are coming to our hospitals to work as volunteers in a program of unique benefit to the mentally ill.

The effectiveness of the general practitioner as the first line of defense against mental illness has been cogently demonstrated.

But were he alive today, I am sure that Beers would emphasize one need above all others—research. Research in mental illness is being carried on at a higher level than ever before, but we need to do more, much more, as the best hope of unlocking mysteries in causes and providing more effective methods and techniques of treatment and rehabilitation.

The Author. *(Acting) Commissioner of Mental Health*

COMMITTEE ON ACCIDENT PREVENTION

LOUIS SPEKTER, Hartford, *Chairman*

Harold A. Bergendahl, Norwich
Alfred L. Burgdorf, Hartford
Clement C. Clarke, New Haven
Gaert S. Gudernatch, Sharon
John F. Kilgus, Hartford
Bernhard A. Rogowski, New Haven
William M. Stahl, Jr., Danbury
Oliver L. Stringfield, Stamford

ARE YOUR PATIENTS FIT TO DRIVE?

The "level of suspicion" of practicing physicians could be raised with respect to motor vehicle accidents and their patients. Just as a physician is advisor in the prevention of disease, so a physician can be advisor with respect to prevention of motor vehicle accidents and the promotion of safety for his patients. It is believed that, whenever appropriate, a physician should keep driving safety in mind as he counsels his patients.

The committee is well aware of the fact that much more needs to be known about the relationship between physical, emotional and mental conditions and their causation of motor vehicle accidents. For Connecticut, there is little information that could guide the committee. At a recent symposium[1] an attempt was made to indicate the conditions that might be considered as playing a role.

It is suggested that a physician should always ask himself when he sees a patient of legal driver's age or near that age such questions as: "Does this patient drive an automobile?" "Does his physical or mental condition preclude driving?" "Under what circumstances would it be safe for him to drive?"

It was the opinion of the committee that it might be helpful if hints were available to physicians as to the correlation of clinical symptomatology with hazards in driving. To this end a suggested list of physical and emotional conditions has been set up to alert them.

The list that follows has no relation to the granting or taking away of a patient's license, nor is there any intent to imply that a patient must not drive if he has one of these conditions. The list is merely a guide for the physician to help the patient and to decide whether driving may be hazardous; under what conditions the patient might drive; how much he should drive; whether he should drive under night conditions; under conditions of heavy traffic, etc. Obviously the list is not exhaustive and as stated before, much more needs to be known before establishing the relationship of a specific condition to possible accident causation.

A suggested list of medical conditions that may predispose to automobile accidents:

I. Visual
  Central visual defects (Snellen Test)
    1. Refractive errors
    2. Pathological conditions
  Peripheral visual defects (perimetry)
    1. Ocular pathology, especial glaucoma
    2. Central nervous system conditions
  Defects of light and dark adaptation
    1. Age
    2. Cataracts
    3. Congenital conditions
  Less frequent factors: Double vision, color blindness, poor depth perception

II. Auditory
  Hearing loss

III. Metabolic
  Severe diabetes
  Hyperinsulinism

IV. Neurologic and Psychiatric
  Psychosis
    1. Schizophrenia—poor judgment and impulsiveness
    2. Manic-overactive
    3. Depressive—underactive
    4. Organic—delayed reaction time
  Epilepsy—all types
  Drug addiction
  Alcoholism

Cerebral palsy, Parkinsonism, tabes dorsalis, multiple sclerosis, vascular disorders and their conditions producing hemiplegia, hemanianopsia, and ataxia
Meniere's syndrome
Narcolepsy

V. Cardiovascular
Conditions disposing to loss of consciousness such as:
1. Disorders of blood pressure
2. Heart block and other arrhythmias
3. Severe anemia
4. Congestive failure
5. Coronary insufficiency
6. Cerebrovascular disease

VI. Orthopedic
Disturbances of motility that would interfere with driving

VII. Therapeutic drugs
Side effects or exaggerated reactions may be serious as regards driving and should be recognized. (This list is far from complete)
1. Alcohol
2. Insulin
3. Narcotics
4. Barbiturates
5. Antihistamines—including drugs for motion sickness
6. Tranquilizers
7. Amphetamines

This brief discussion is an attempt by the Committee on Accident Prevention to make some tentative statements regarding two points:

An activity of the physician in the prevention of motor vehicle accidents (the physician has other roles to play.[2, 3])

The possible relationship between certain physical, mental and emotional conditions as contributory factors in causing motor vehicle accidents.

It is realized that more basic information is needed before definite answers can be given.

(Since preparation of the above, the American Medical Association has published a booklet, "Are You Fit to Drive?," which contains helpful information for patients. The booklet is available in limited quantities from the Connecticut State Medical Society.)

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OUR MEDICAL WORLD

Turkey

There are only three medical schools in Turkey with a population of about 20 million. They are located at Istanbul, Ankara, and Salonica. The medical course is six years, two years of premedical and four of medicine. The majority of graduates get an internship. The Istanbul school has 3,000 students, with an admission rate of about 500 and the same number of graduates annually. The method leading to specialization is much like that in this country: four years of medicine, surgery, or ophthalmology. Pathologists require but three years. Much of the postgraduate work is obtained abroad. Many go to Zurich or Geneva and some come to the United States to the large clinics such as the Mayo's. The president of the World Medical Association, a successful Istanbul physician, has two sons. One is now at the Mayo Clinic pursuing surgery and the other expects to go to Boston this year to study pediatrics.

The Battle Against Inflation

(From the BULLETIN of the Fellowship for Freedom in Medicine, London)

On this theme some very interesting facts are coming to light in the dispute with the Minister of Health. Without going into the rights or wrongs of this affair, let us have a look at some of these. There are 40,000 clerks and administrators in the Health Service—rather more than all the doctors put together. Each of these works a 38 hour week; anything above this is called "overtime"—such lan-

(Continued on Page 396)

COMMITTEE ON PERINATAL MORTALITY

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CASE REPORT 1

This male infant was delivered at full term by low forceps. Birth weight was 5 lbs. 7 ozs., length 19½ inches. The mother, a gravida 4 whose blood was type A Rh negative (c d e), Wassermann negative. She received a blood transfusion in 1945, had two normal children but the *third infant died five minutes after birth with severe erythroblastosis.*

In the fifth month of the present pregnancy, the conglutinin titer was 1:4, slide test 1:4 and Coombs test positive. At eight months conglutinins were 1:8, slide test 1:4 and Coombs positive 1:32. At birth the infant's cord blood Coombs was positive but there was no jaundice noted. The cord bilirubin was 4.1 mgs. per cent; type O D positive and a hemogram at birth showed 21 Gms. of Hgb; 22,400 WBC and 4 normoblasts. The infant was jaundiced at 12 hours at which time the Hgb. was 17.8 Gms; WBC 22,000 with 7 normoblasts, and icterus index 115. At 48 hours of life the infant was severely jaundiced, irritable, groaning and had a distended abdomen. Hgb. was 17.6 Gms, with 3 normoblasts. No bilirubin was done and treatment consisted of clysis and enema. At 72 hours the condition was poor, respirations were labored, jaundice was severe. The infant was vomiting, had a temperature of 101 and was comatose. Serum bilirubin was 14.8 mgs. per cent (this may have been the sample that was removed during or after the exchange transfusion), Hgb. was 12.4, WBC 7,800, 64 per cent normoblasts. A consultation was obtained and immediate exchange transfusion performed with 480 cc of Type O, Rh negative blood. The infant expired shortly thereafter. Postmortem examination revealed severe kernicterus.

The Committee felt that this was a preventable death because of the following factors.

1. The history of the previous pregnancy terminating in neonatal death at five minutes was a serious prognostic sign.
2. The maternal anti-Rh titres suggested the possibility of trouble with this pregnancy.
3. The baby at birth had a positive Coombs test. This demonstrates sensitization of the infant although it does not alone serve as an indication for replacement transfusion. In this case it had more than usual significance because it was not the only positive finding.
4. The cord bilirubin was 4.1 mg. per cent. Any value over 3 to 3.5 mg. per cent is a strong indication of trouble to come.
5. The baby was premature by weight. Premature babies with their immature hematopoietic, hepatic and cerebral tissues are much more prone to develop kernicterus than bigger babies and must be treated accordingly.

The Committee felt that there was adequate grounds for doing a replacement transfusion shortly after birth or at least in the first 24 hours. With the relatively low blood bilirubin at that point it is reasonable to speculate that the baby might have escaped kernicterus.

The danger signals in erythroblastosis are:

1. A positive titre in the mother—the relative significance of the level as such being hard to evaluate.
2. A positive Coombs test in the newborn infant, a bilirubin of more than 3.5 mg. per cent, a hemoglobin under 12 Gm. per cent, or a bilirubin over 10 mg. per cent in 24 hours.
3. A history of previous severe erythroblastosis in an infant.
4. Prematurity.

The Committee has asked a recognized authority in the field of hemolytic disease of the newborn to

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NEWS FROM WASHINGTON

New Legislation

In *H.R. 11057,* Rep. Zablocki (D., Wis.) proposes to set up a Bureau of Older Persons within the Department of Health, Education, and Welfare and in other ways to provide assistance to the aged. The chief of the bureau would assist the Secretary of HEW to administer these three programs: (a) $2 million to states to help them develop projects for benefit of the older population, with maximum one-third of cost; (b) total of half million dollars to public and other nonprofit groups for research and training, with maximum of $30,000 to any group; (c) $2 million first year, increasing to $5 million fourth year, to help states operate projects, with states' allotment between one and two-thirds, depending on state's relative per capita income.

Projects to be financed would emphasize such health problems of the aged as ". . . to achieve a retirement income sufficient for health . . . older persons to receive adequate nutrition, preventive medicine, and medical care, adapted to the conditions of their years . . . to rehabilitate and to restore to independent, useful lives in their homes older persons who are chronically ill, physically disabled, mentally disturbed or incapacitated . . . (and) . . . development of special courses in schools and departments of medicine, nursing, clinical psychology. . . ."

SOCIAL SECURITY

Senator Thye (R., Minn.) in *S. 3419* would amend social security requirements for disability freeze and disability pay in the following respects—in addition to other requirements for social security coverage to qualify for these benefits, applicants have to be covered for five of the 10 years preceding disability; this bill would eliminate this requirement.

Benefits and the tax rate and base under social security would be increased by *H.R. 10974,* by Rep. Dent (D., Pa.). It would reduce the retirement age for both men and women to 60, and make the dependent spouse eligible for benefits when the wage-earner became eligible. Monthly benefits would be increased across the board. The minimum would be $50 per month, the family maximum raised from $200 to $250. One other provision would reduce the amount of earned income permitted without loss of SS benefits from $1,200 per year to $600, to open up more employment for younger workers. These liberalizations would be financed by increasing the wage base on which SS taxes are paid from the present $4,200 to $5,000. Also, the tax rate would be increased for both employer and employee by one-half per cent each and the self-employed by three-quarters of one per cent. An increasing schedule of rates would mean that by 1975 the self-employed with an income of $5,000 or more would pay $356 annually, while the employed and employer would each pay $237.

Senator Morse (D., Ore.) in *S. 3508* would amend the social security act to (a) provide hospital and nursing home care and surgical benefits identical with those in the Forand bill, (b) increase the wage base and rate for social security payroll taxes and (c) increase social security benefits. By substituting a table for the present law's formula to determine benefits, this bill would increase the minimum to $40 per month, the maximum family benefit from $200 to $346.40, and the maximum individual primary benefit from the present $108.50 to $173.20. Also, a more liberal "drop out period" would be provided. The wage base on which tax is levied would be increased from the present $4,200 to $6,000, and the rate increased to 3½% for employer and employee and 5¼% for self-employed for the 1959-60 period. By 1975 the respective rates would be 5½% and 8¼%. The bill also would increase U.S. public assistance payments by 25%.

TAX RELIEF

Bills continue to be introduced to allow tax relief for the financing of college educations. *H.R. 11312* by Rep. Chamberlain (R., Mich.) would allow those with adjusted gross income of less than $7,500 to deduct up to $800 for tuition and fees for college education. . . . *H.R. 11393* by Rep. Cramer (R., Fla.) would allow a credit *against the tax* of up to

$400 for college education costs, but would deny the benefit to those with scholarships or fellowships or attending college under the GI bill. . . . A bill by Senator Thurmond (D., S. C.) would allow a credit of $100 *against income tax* for a taxpayer financing a college education, but with the same restrictions as the Cramer bill. The Thurmond bill is *S. 3483*.

Senator Hill (D., Ala.) proposes in *S. 3527* to allow an additional $600 income tax exemption for persons attending schools of higher education.

VETERANS ADMINISTRATION

Rep. Long (D., La.), since deceased, introduced a bill, *H.R. 11364*, that would raise pay for medical personnel in the Veterans Administration. The increases would be similar to those provided in an earlier bill (*H.R. 6719*), but the later bill would not elevate optometrists to the same status and pay scale as physicians. Instead, *H.R. 11364* would place optometrists in the category of ancillary medical personnel, such as biologists, chemists, biostatisticians. This bill also lowers the present 25 per cent increase for board specialists to 17.5 per cent, with a top salary limitation for them of $16,000.

New Ruling on Medical Deductions

Internal Revenue Service has clarified conditions under which expenses of travel, undertaken at a doctor's direction, may be deducted from taxable income. An elderly taxpayer, who was suffering from arteriosclerotic heart disease, had been advised by his doctor to go to a predetermined location where the temperature would be more suitable and where he could receive proper medical care. The physician also banned any further travel or sightseeing. Also, the physician advised the patient to have a nurse accompany him to administer the necessary injections and medications and to help him in and out of his wheelchair.

IRS ruled that because the travel was to alleviate specific ailments and was not for general improvement of health, the taxpayer was entitled to deduct his travel expenses and those of his nurse.

Physicians Told Facts of Life at Unique Session

Daringly sponsored by a drug house, a capacity-attended conference of physicians took a blunt briefing in medical economics in Washington in March. More than 1,000 packed the Statler's biggest ballroom to hear a layman advise them to own up to commercial motivations and to take patients into their confidence, among other things. The one day "Doctor and His Practice" course, paid for (luncheon included) by Wm. S. Merrell Co., Cincinnati, was a pioneering venture whose lessons could benefit the medical profession collectively as well as individually.

Experts lectured on malpractice suits, estate planning, income taxes, insurance and other subjects of practical importance. But top feature was the platform prescription of a psychologist, Ernest Dichter of New York, to acknowledge that "the doctor's role is a combination of idealism and commercialism which often causes conflict."

The meeting, an invitational affair attended by MD's from a 100 mile radius, was so successful that Merrell may sponsor more like it in other areas of the country.

AMA Asks Improved Medical Setup in Civil Aeronautics Administration

American Medical Association has asked Congress to strengthen the Civil Aeronautics Administration medical department so it can properly discharge its responsibilities. A letter from AMA General Manager Blasingame to Chairman Magnuson (D., Wash.) of the Senate Interstate and Foreign Commerce Committee points out that under present conditions the medical department is subordinated in the CAA and medical issues are being settled by the Civil Aeronautics Board, which does not have qualified medical personnel. The letter makes these points:

1. Physical standards for and medical evaluation of fliers "must be carried out by physicians experienced in aviation medicine and medical determination should be conducted by physicians . . . who have the necessary professional qualifications and experience."

2. There should be set up within CAA an office of civil air surgeon, with the chief directly responsible to the administrator, and a civil aeronautics medical research laboratory.

3. Rule-making authority for medical standards should be transferred from the CAB, which does not have a professionally qualified medical staff, to CAA.

Dr. Blasingame also pointed out that the AMA now has a permanent and active committee on aviation medicine, and that the Association's policy is based on recommendations of this committee.

New Developments in Poliomyelitis Vaccine Drive

Looking to the return of the poliomyelitis season, the Public Health Service in April set the stage for a stepped-up public campaign to encourage more persons to take inoculations. These were some of the developments:

1. PHS announced that a new Census Bureau survey had disclosed that as of March 1, there were some 2.5 million more persons under age 40 who had not had any polio vaccine than had previously been estimated. This brings the total to 48.5 million unvaccinated. (One encouraging note was that the survey had picked up another 7.5 million who had had all three inoculations, for a total of 42.5 million.)

2. Surgeon General Burney warned there would be serious epidemics this year unless there was an acceleration of vaccination programs. Should 1958 turn out to be a bad year like 1952, then 300,000 cases could occur among the unprotected, he claimed.

3. A 14 man ad hoc committee meets to consider the question of whether a booster shot should be recommended for those who have taken the three inoculations. The meeting also takes up progress reports on the continuing campaign to get every person under age 40 vaccinated with the three shots, and then turns to plans for intensifying the effort during the spring.

Kentucky Crisis Near on Free Choice Issue

Washington headquarters of United Mine Workers Welfare and Retirement Fund indicates it will close out entire medical care and hospitalization program in Kentucky if that state enacts law compelling health service plans to grant clients freedom of choice of physician. Dr. Warren F. Draper, chief medical officer, and other UMWA officials spent weekend in Frankfort in attempt to stop the measure.

"House Bill 343," said Dr. Draper, "would not only make it impossible to take any steps to influence the quality of medical care that a beneficiary might receive, but would remove all feasible methods of controlling the expenditures of the trust fund for medical and hospital care in the state of Kentucky."

Prediction by Gerald Gross: If 343 becomes law, it will weaken still further organized medicine's prestige on Capitol Hill and brighten chances of liberal legislation, notably Forand bill, while hurting prospects for passage of Jenkins-Keogh.

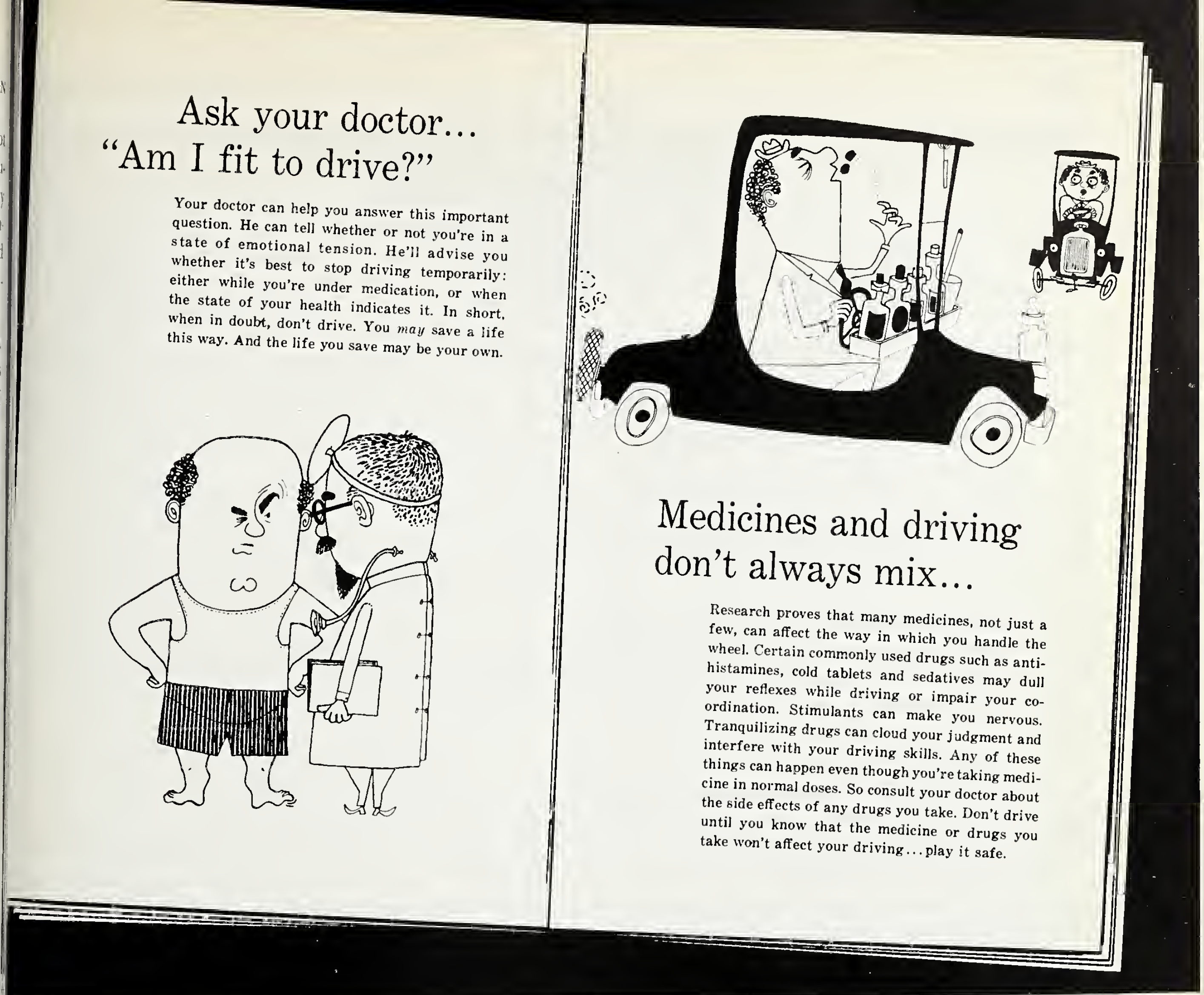
Our Medical World

(*Continued from Page 392*)

guage is quite incomprehensible to a man who has been brought up to doctoring. At one hospital in London, King's College, the administrative and clerical staff was under 30 in 1948; today it is 160. Please note that the Guillebaud Committee could not find that "there is any large inflation of clerical or administrative staff at the present time".

You must not think that these nondoctors in the Health Service include nurses or personal secretaries; they are mostly clerks who spend their time entering up the sort of information about patients that a general practitioner does in the ordinary course of his work without extra cost to the nation. Another large body spend their time collecting and rendering information to Regional Hospital Boards and the Ministry. This is subsequently translated into statistics which are out of date before they are compiled. A large proportion of the paper work beloved of the bureaucrats is of no practical use whatever (except that it multiplies their jobs).

Years ago we foresaw the National Health Service might well be swamped by its own bureaucracy. Unnecessary superstructure has made it top-heavy: sooner or later it will heel over and sink. But let me hasten to add that we in the Fellowship are convinced that some sort of Health Service is very desirable for the country. The present Service, if it does sink, will have been very useful in showing a dozen glaring pitfalls to be avoided in any system which replaces it. It does not matter whether the new scheme is ours, based on ours, or completely different, so long as it brings the doctor and patient together again and gives the country proper value for money.



Ask your doctor... "Am I fit to drive?"

Your doctor can help you answer this important question. He can tell whether or not you're in a state of emotional tension. He'll advise you whether it's best to stop driving temporarily: either while you're under medication, or when the state of your health indicates it. In short, when in doubt, don't drive. You *may* save a life this way. And the life you save may be your own.

Medicines and driving don't always mix...

Research proves that many medicines, not just a few, can affect the way in which you handle the wheel. Certain commonly used drugs such as antihistamines, cold tablets and sedatives may dull your reflexes while driving or impair your coordination. Stimulants can make you nervous. Tranquilizing drugs can cloud your judgment and interfere with your driving skills. Any of these things can happen even though you're taking medicine in normal doses. So consult your doctor about the side effects of any drugs you take. Don't drive until you know that the medicine or drugs you take won't affect your driving... play it safe.

This new booklet is a onvincing message to all rivers to check physical itness before taking the heel.

"Are You Fit to Drive?" rges drivers in doubt of heir fitness to consult heir physicians. The 15 olorful pages tell about onditions which affect riving skills—emotional upsets, medicines, sleepiness, faulty vision, nerve or heart disorders, diabetes, age, and drinking.

Published by the American Medical Association, the booklet is available for physicians' offices. You may obtain two copies by mailing the coupon on this page.

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Fairfield County Association Sponsors Course for Medical Assistants

A refresher course for medical secretaries was sponsored by the Fairfield County Medical Association's Committee on Public Relations Sunday afternoon, April 27, at the University of Bridgeport.

Approximately 100 medical secretaries and office nurses attended the course, the first to be offered in the area, and it is anticipated the high degree of interest will encourage continuation of the program.

The course featured improved methods of telephone use, the value of patient-secretary relationships, improving collections, maintenance of good will and general office procedures.

A postcard survey to ascertain interest in refresher courses was conducted prior to planning the conference from the office of Arnold P. Olson, executive secretary of the Association. The large number of returns and favorable comments exceeded expectations and assured success of the course.

AMA Committee on Injury in Sports Publishes New Guide

Dr. Allan J. Ryan, Meriden, chairman of the American Medical Association's Committee on Injury in Sports, recently announced publication of a new guide for organizing local programs to protect the health of high school athletes.

In the foreword of the 20 page booklet, Dr. Ryan states that "The Committee recommends the sports injury conference as a helpful means of initiating a protective plan or of refining procedures if a program is already established. A number of conferences—state and local—have already served this purpose. This booklet has been prepared with the hope of helping other communities carry out similar conferences to the end that every athlete shall have the best possible protection for sports participation."

The purpose of the conference as outlined in the publication is to instruct coaches, athletic directors and team physicians on early recognition of injuries, appropriate first aid measures and prompt referral of injured players for medical or dental care. The booklet is now being distributed to local associations for use by committees interested in the project.

Emergency Call Plan Advanced in New Haven

In order to improve its Emergency Call Plan, the New Haven Medical Association recently requested its members to name an associate who may be called in the event that any of their patients find it necessary to use the plan.

The action was taken by the association's Emergency Medical Service Committee. In a letter signed by Samuel Spinner, committee chairman, it was pointed out that a survey of the emergency calls received during 1957 indicated that nearly fifty per cent came from persons who have family physicians. It is anticipated that in these cases, the new move to designate substitute physicians can provide more efficient service.

It was reported that the plan received 246 requests for emergency care in 1957 and that 74 physicians answered these calls.

New Exhibits Available for Local Associations

The AMA Bureau of Exhibits announces that a number of new exhibits will be ready for showings by local medical societies at fairs, home shows, school and similar public gatherings this spring and summer.

You Can Reduce—shows foods to fill up on and stay away from; gives visitor an opportunity to check his weight on the scales; presents answers to pertinent questions on reducing; pictures 25 different foods and the number of calories in the servings shown.

Food and Nutrition Quackery—developed in cooperation with U. S. Food and Drug Administration, Post Office Department's fraud division, and National Better Business Bureau to point up the major false claims made in the promotion of food products and nutrition ideas; exposes house-to-house peddlers of "food supplements," nutrition and health lecturers and so-called "experts;" displays various reducing aids on a roulette wheel; features special "buyer beware" section explaining how public can recognize food quacks and their claims.

Breathing – presents the anatomy of body's breathing system and air passages and location of lungs in the body; viewer can observe how lungs expand and contract and the movement of the rib cage.

Glands—shows the location and functions of various glands in the body; presents three-dimensional models of glands.

Poisoning of Children—demonstrates dangers of common household products and depicts those products that are leading causes of poisonings in children at home.

Health Appraisal of the School Child—highlights principal health appraisal procedures, such as teacher observation, screening procedures, dental and medical examinations and the follow-through.

Medical Grievance Committees On the Increase

More than 1,100 county and state medical societies in this country now have grievance committees organized to mediate differences between doctors and patients. The idea originated in the Massachusetts Medical Society in 1871 but only during the past ten years has this method of settling such difficulties spread across the nation. Serving on these committees are between 5,000 and 10,000 physicians who pass judgment fearlessly according to the merits of the case at hand.

The majority of the complaints are due not to incompetence or greed but to misunderstanding, particularly in regard to fees. Doctors are urged to discuss fees with their patients and state and county medical societies are encouraged to crack down on the few physicians who have been overcharging.

Lasker Committee Assails Veterans Administration

The National Health Education Committee of which Mrs. Albert J. Lasker is chairman has pointed an accusing finger at the Veterans Administration for spending $745 million in medical care for veterans in 1957 and only $9 million for medical research in the same period. "The key to reversing the steadily increasing medical care costs for our aging veterans," she said, "is an enlarged research budget." It was pointed out that VA has realized savings of $38 million in the last three years in hospitalization costs of its patients through research discoveries in tuberculosis alone. Unless new methods of treatment and prevention are found, the outlook in the case of cancer alone is a serious one.

California Votes Basic Fee Policy

The Council of the California Medical Association recently voted that with the advice of the Commission on Medical Services the Council review and establish its basic policy regarding fee schedule negotiations and contractual relationships involving medical service; that such basic policy be submitted to the following meeting of the House of Delegates for its consideration and approval; and that thereafter all future contracts should be modified to conform to the established policy.

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YOUR RESERVATIONS

FOR AMA IN

SAN FRANCISCO

JUNE 23-27 ?

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Report on the President's Committee for Traffic Safety

The President's Committee for Traffic Safety, Eastern Region, was invited to Atlantic City March 11 and 12, 1958. The Woman's Auxiliary of the American Medical Association was invited to participate. Mrs. Paul Tisher and I represented you. Six hundred people were expected and over nine hundred attended.

The first thing on the agenda was the President's Breakfast which started at 8:15 A.M. The brass band played, there was a posting of the colors by the Boy Scouts and I can assure you that they made certain that you were wide awake. We all sat according to states and Governor Meyner of New Jersey greeted us. We were informed that this was a gathering of a working group of citizens and no amusements had been planned for us. After breakfast a picture of President Eisenhower was flashed on a screen. He presented the problem that our traffic accidents had reached alarming proportions and in the years ahead there would be more vehicles and more drivers and unless the traffic accident problems were met now by the citizens the carnage would become progressively worse. A film "The No. 1 Lifesaving Challenge in America Today" was shown. It was a documentary film with statistics. Problem—Traffic accidents are at a near all time high, travel has doubled in the last ten years and is expected to double in the next ten years. Solution—Accidents can be cut one half. How?—Develop citizen support. Where?—Your city, your state. Who?—You. (The booklet with this information is available as we brought back quite a few copies.)

Following this we met in separate rooms according to states. The Chairman for Connecticut was Frank O. H. Williams, Connecticut manager of the Connecticut General Life Insurance Company, and John Tynan, commissioner of motor vehicles, presented the needs.

The Connecticut State traffic program needs were divided into six parts: 1. Uniform laws: At present there are three major legislative needs. The one that was given the most attention is the chemical tests for intoxication. This has been brought up but the bill was put aside. They want to get the "Implied Consent" provision. This means that when you sign your license you have automatically given your consent to have the test taken. The other two laws were the absolute maximum speed limit and the state model traffic ordinance.

2. Accident records: There should be a standard accident investigation report.

3. School traffic safety education: They need programs for planning effective school safety programs. Regarding driver education a law in Connecticut will go into effect July 1, 1958 in which no driving license at 16 or 18 will be issued until the person has a certificate by registered teachers who have taken a 45 hour course. The State Board of Education will reimburse the municipality $10.00 a pupil where driver education courses are given. Private or parochial schools do not receive this aid at present. In other states, where nothing is granted, they have had to discontinue their driving instruction because of lack of funds.

4. There is a need of an expanded police training program.

5. The courts need reorganization.

6. State traffic engineering services should be given to communities.

All these points were discussed in detail and it was decided to recommend that everyone should be qualified physically every so often on a selective basis. The American Medical Association has issued a folder "Are You Fit to Drive?" which should be distributed. Men in industry stressed the need of adult driving courses. It was suggested to stress courtesy and give drivers something to live up to. The scripto slide film "A Car of his Own" of the Auxiliary of the American Medical Association was brought to the attention of the group by Mrs. Tisher.

The afternoon session was divided into six various groups. Mrs. Paul C. Craig, our National president, wanted both of us to attend Parents-Women. Our Connecticut Chairman told the group the following day that the ladies section was the outstanding one of the afternoon. The Chairman was Mrs. Raymond Sayre. There was first a panel of four women who gave brief accounts of their successful investments in traffic safety work. Mrs. Robert Johnson of Biddeford, Maine, a town of 23,000, put across a successful campaign on the bicycle and child safety. It was an excellent example of a small community project well done. Mrs. Raymond Johnson of the Connecticut Safety Commission told how 96 women's clubs in Connecticut were organized and made conscious of safety on the road and in the home. Mrs. Joseph Ennis of Delaware told how she brought the safety educational program into the legislation. Mrs. John Wagner, The National Safety chairman of the Woman's Auxiliary, gave an excellent talk on the educational program to serve group leaders in your own community. The idea is to begin where you are and with what you have.

The summary of this meeting was as follows: State officials and traffic specialists have surveyed the major traffic problems but PUBLIC SUPPORT is indespensable for this program to be successful and it is believed that the parents and women's groups can help win this support. It is important to get the facts, determine what assistance your group can give and spot a job. Then get action and provide follow through.

That evening the Shell Oil Company invited all the ladies to a cocktail party which was well attended.

At 9 o'clock the next morning we were back on the job according to states. Summaries of the six afternoon meetings were given. The general opinion was that Connecticut still had a great deal to do but it was far ahead of most of the states in traffic safety. Reports of the groups follow:

Business: Safety is good business. Profits are made through better safety programs. Leadership and teamwork are essential and people should be informed.

Religious: Again it was stressed that Connecticut was ahead and looked up to by the other states. The Greenwich experiment, due to its thoroughness, worked and was imitated. Alcohol tests must be put through. By means of the church, people can be taught their safety obligations.

Civic, Fraternal, Professional: They believed in bringing out the positive and have rewards rather than punishments. People should be examined for physical defects that make it dangerous for them to drive. Get the literature to the local levels. The difficulty in getting leaders is that the good men are too busy.

Agriculture: Law enforcement and better road markings were stressed. There should be special lights on slow moving vehicles. We were interested to know that in New Jersey last year there were 5,000 deer accidents. That problem was not solved.

Labor: The statistics show that twice as many workers were killed off the job than on the job. Labor is very concerned and is going to put full effort into the program and the unions will use their journals for this purpose. This was the only group that mentioned that the manufacturers of cars stressed horsepower rather than safety. In many cars only the windshields have safety glass. The safety of pedestrians was also brought up.

Although Connecticut was outstanding they all wanted to make a good record even better. To do this it is important to get the facts and car accident studies and statistics on alcohol are being done. Public support is needed for legislative purposes. More should be done to train the police.

Dr. Stringfield, one of our Advisors, drove back with Mrs. Tisher and myself and we discussed what we as an Auxiliary could do to help in this very worthwhile program. We had huge bundles of literature, we were given facts, many facts, and we were tired. The Auxiliary has not ignored the problem. We have had speakers on safety. We have the scripto slide film "A Car of his Own". We have stressed safety as an organization. But as citizens have we done enough? The attitude is "Let John do it". We complain but we do not act. In Connecticut, the outstanding state, there are 169 townships and only 30 citizen committees. It was made

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References: 1. Grieble, H. C. and Jackson, G. G.: Prolonged Treatment of Urinary-Tract Infections with Sulfamethoxypyridazine. *New England J. Med.* 258:1-7, 1958. 2. Editorial *New England J. Med.* 258:48-49, 1958. 3. Jones, W. F., Jr. and Finland, M., Sulfamethoxypyridazine and Sulfachloropyridazine. *Ann. New York Acad. Sc.* 60:473-483, 1957.

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Pearl River, New York

clear to us that the police, business men and members of the legislature want the citizens to cooperate and it is up to us to back them. Mrs. John Wagner, our National Safety chairman, said that the idea was to begin where you are and with what you have and follow through. Study your own community, find a worthwhile safety project, get the help of other citizens and do the job.

Mrs. Charles Murray Gratz,
President-Elect

Disease Pattern Changes

Excess male mortality is characteristic of nearly all leading diseases; but the widening of the differential has, to a considerable extent, been associated with a shift in the leading causes of death, from the communicable diseases at the turn of the century to the degenerative diseases today.

In 1900 pneumonia and influenza, tuberculosis, and diarrhea and enteritis—three of the five leading causes of death, accounting for nearly a third of the total—resulted in excess male mortality of only 2, 9, and 9 per cent, respectively. By 1955 the importance of these diseases had declined; although their excess male mortality had risen sharply in the interim, their effect on the sex ratio for all deaths was almost negligible.

Heart disease in 1900 caused an excess male mortality of only 11 per cent. But after 1920 the differential rose steadily, reaching 78 per cent by 1955. This rise was associated with a decline in the infectious and rheumatic forms of the disease, and a corresponding increase in arteriosclerotic heart disease, especially diseases of the coronary arteries. Male mortality from heart disease is currently more than twice the female rate over the entire age range 35-64.

Because of the importance of heart disease in today's mortality picture (nearly 40 per cent of all deaths in 1956 were ascribed to this cause) a considerable proportion of the current excess of male deaths is accounted for by this disease alone. It causes more than half the total disparity at ages 40-74; thereafter the proportion declines and is just under one-sixth at 85 and over.

At the upper ages, in addition to heart disease, malignant neoplasms (cancer) account for a sizable proportion of the excess male deaths. Cancer was a relatively minor factor in the mortality picture around 1900, causing about 4 per cent of all deaths. At that time female deaths from this disease exceeded male by 65 per cent. By 1955 cancer accounted for 16 per cent of all deaths, and there was an excess *male* mortality of 20 per cent.

The male death rate from cancer currently exceeds the female rate from birth through the ages of 25-29 and at 55 and over. After the early twenties, a large proportion of fatal malignancies involve the female breast and genitals.

At the older ages, the digestive system is the most common site, accounting for over 40 per cent of all cancer deaths. Males are most vulnerable, with their toll exceeding that of females by about 50 per cent at ages 60-74. The largest male excess in cancer mortality involves the respiratory system; the number of such deaths has increased spectacularly in recent years.

Diabetes mellitus is the only major disease that has a higher age-adjusted mortality rate for women than men. The death rate from this disease, for reasons that continue to remain obscure, is over 35 per cent higher for females than males. Nevertheless, this has little effect on the total mortality situation, since in 1956 less than 2 per cent of all deaths were ascribed to this specific cause.

Cancer News

(From American Cancer Society *News Letter*, January, 1958)

Macklin of Ohio State University says that mortality rates from breast cancer are about 60 per cent higher in single than among married and that the risk decreases with the increasing number of offspring. She believes that genetic factors in human breast cancer are at least as important as the environmental.

Using new age-correcting statistical techniques, Messinger of the University of California estimated that 62 per cent of localized breast cancer patients from any age group are alive ten years after diagnosis.

OBITUARIES

Harrie Jay Onderdonk, M.D.

1872 - 1958

Dr. Harrie Jay Onderdonk, who had been medical examiner for East Hartford for 44 years, died at his home at Cornfield Point, Saybrook, Connecticut on January 8, 1958 in his 86th year. He had retired from active practice in East Hartford in 1953 after fifty-five years of general medicine during which time he had ushered many East Hartford residents into the world.

He was born March 5, 1872 in Gaines, N. Y., son of the late William H. and Helen Mason Onderdonk, and attended Harvard University before receiving his M.D. from New York University in 1892. He completed his internship at Bellevue Hospital in New York City.

In 1898 Dr. Onderdonk opened up an office at 650 Main Street, East Hartford. He made visits to his patients first on a bicycle and at times via the trolley. In 1906 the doctor acquired one of the first automobiles in town. He made his house calls until 1952 during which time he wore out a number of automobiles.

Dr. Onderdonk enjoyed reading books on philosophy and the biographies of great men during his spare time. He was also a reader of Greek and Latin classical literature. The past five years he had resided at Saybrook where he remained fairly active up until the time of his death.

He is survived by two daughters, Helen L. and Maxine G. Onderdonk, and a stepson, Howard N. Barnes.

Raymond T. Houle, M.D.

Alice Porter Ford, M.D.

1877 - 1958

It is with greatest sorrow that we announce the death of Dr. Alice Porter Ford on January 16, 1958, after a long illness. She was a member of the Class of 1901, Wellesley College, a graduate of Women's Medical College, and served her internship at Women's Hospital, Detroit, Michigan. She specialized in obstetrics and pediatrics. In 1906 she opened an office on Chapel Street, New Haven, and from then on during fifty years of medical practice, became an outstanding physician often pioneering. She was one of the first doctors to make full use of the V.N.A. She started the milk station at the Baby Conference of the Neighborhood House.

During World War I, Dr. Ford took all cases involving soldiers' wives and their children, for which she never charged a fee. Her spare time was spent on Red Cross work. During World War II, the job of examining the WAACs was her contribution. Under her worked a staff of six doctors. Here she shone with her native good sense and sharp perceptions, while efficiency and fun went hand and hand. She was for many years on the staff of the New Haven Hospital Baby Clinic and the obstetrical staff of Grace Hospital. One of her pet boasts, and she was not given to blowing her own horn, was that she had brought 3000 babies into the world and had never lost a mother. She loved children, and the walls of her office were covered with baby pictures of those whose first contact with this world was her able and efficient hand.

Not only did Alice Ford shine as a physician; from her college days she showed her executive ability and powers of leadership. She was president of her class at Women's Medical during junior and senior years. She dearly loved her connection with Wellesley, and worked for the college all her life. She was a charter member of New Haven Quota Club and became an honorary member. She belonged to the New Haven Philatelic Society, and gathered a very valuable array of stamps. She was a member of city, state, and national Medical Societies.

The last recognition of her long years of service came the year she died when the Connecticut Medical Society entertained her as its guest of honor, and presented her with a 50 year membership pin and citation. In 1956 she went back to the 55th reunion of her class at Wellesley to receive the well earned acclaim of her college. During her long and useful career she invariably turned aside the praise and honors; but at the end, when her practicing days were past, the love and admiration which surrounded her gave the deepest happiness.

For those of us who knew Dr. Ford best, the honored position of physician was beautifully reenforced by her remarkable qualities of friendship and hospitality. Her home was the center where we all loved to go. Her ear was always ready to hear our troubles. She gave excellent advice as well as the necessary pill. Whether one was a mother speaking broken English or an intimate friend with a string of academic initials after her name, all were welcome and interesting to her warm, loving heart. Backing her up and supporting her at home and abroad was her friend and office nurse, Miss Marian Taft, who became her "family" as well as nurse, caring devotedly for her to the end. Dr. Ford was one of those corner stones we read about in the Bible, which, now that we can gather together the long story, seems more beautiful and more enduring than ever.

Marian M. Taft

David Parker Smith
1889 - 1958

"I am a part of all that I have met"
Tennyson.

"Doctor Dave," as he was affectionately called by his patients and friends, started to practice medicine in Meriden forty-six years ago. That era saw an illustrious group of practitioners, who administered, both physically and spiritually, to the needs of their patients. There was a so-called "priesthood" in the role of doctor in those days.

Born in Meriden in 1889, Dave Smith had a distinguished heritage. His father was the "grand old man" of medicine in this locality, famed as a brilliant surgeon and beloved for his gentleness, humility and affection for people.

It was inevitable that Dave should follow in his father's footsteps. After graduating from local schools, he continued his studies at Yale College, where he received the Bachelor Degree. He was graduated from its School of Medicine in 1912 and immediately became an eager student and associate of his father.

Dr. Smith became a skillful surgeon; never ostentatious, always retiring; kindly, affable and seeking no glory for himself.

In those early days, Meriden Hospital was a small institution with no interns and few nurses. He saw it grow to its present size. We can recall the hours of work and effort he expended to accomplish this growth. In those days, before Blue Cross, he ministered to hundreds of ward patients, working all hours of the day and night.

His father, Dr. E. W. Smith, was instrumental in founding Meriden Hospital as Dave Smith was in founding Veterans' Memorial Hospital. It stands as a monument to his untiring effort and persistence. At the time of his death he was looking forward to its expansion and its further growth.

Dr. Smith was fortunate in having two avocations—a love for music and the art of invention.

He excelled as a violinist and was the proud possessor of a genuine Stradivarius, in which he took unbounded pleasure. He was a member of the Meriden Symphony Orchestra and of the Geraniums, a group of professional people gathered together for the express purpose of "just enjoying music".

His other avocation was that of inventor. The Smith Retractor was his brain child and evolved from his long experience in surgery where he could see the practical need of such an instrument. Its usefulness lies in clearing the operative field. It is now used in operating rooms all over the country. This attests to his versatility.

Dr. Smith was Chief of Surgery at Meriden Hospital from 1932 to 1945. He was Chief of Staff at Veterans' Memorial Hospital from its beginning in 1954 to 1958. He was also President of Veterans' Memorial Hospital Association from its inception.

He was a member of the American Medical Association, Connecticut State Medical Society, New Haven County and Meriden Medical Societies. He was a Fellow of the American College of Surgeons.

He served with distinction in World War I as a Captain with the famous 102nd Regiment. Yankee Division. He had the honor of being chosen the first Commander of the American Legion, Meriden Post, No. 45.

The city was saddened on February 1, 1958 when it learned of his fatal heart attack. His hundreds of patients will find it difficult to replace him in their hearts.

We, his colleagues, shall miss Dave Smith's warm personality, his humor and his witty stories. We shall remember his nonchalance, tolerance, tranquility and reluctance to say an unkind word, attributes which endeared him to his medical brethren and patients.

Dr. Smith was proud of his two sons, both members of the medical profession; Dr. Edward Rice Smith, a surgeon in Meriden, and Dr. David Lewis Smith, a pediatrician, in West Acton, Massachusetts. A daughter, Bethia Smith Curry of Cornwall, Connecticut also survives and there are ten grandchildren.

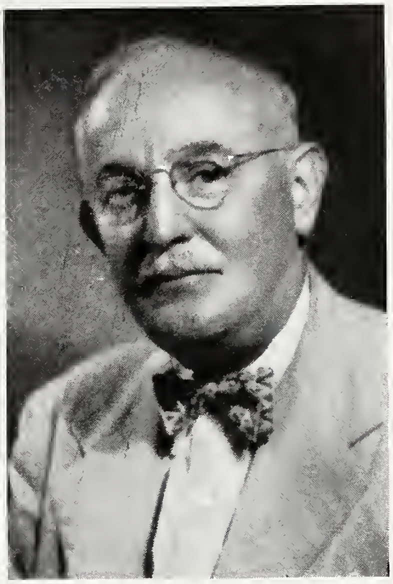
The following are excepts from the editorial which appeared in the *Meriden Morning Record* at the time of Dr. Smith's death.

"Dave Smith was a man of many paradoxes, a man at once simple and complex . . . He liked people. Perhaps that is one reason why people liked him. He was always approachable. He was at ease in every strata of society . . . People loved him. They wept when he died . . . Dave Smith left the mark of his personality on the city and on individuals . . . He was beloved by his patients in a degree that few men, even physicians, ever achieve.

The Smith family has done much for Meriden in many ways. Dave Smith was the worthy son of a worthy father and he has left a worthy heritage to his physician sons".

Raymond V. Quinlan, M.D.

Maurice Jacob Strauss
1893 - 1958



On February 2, 1958 our friend and colleague, Dr. Maurice J. Strauss, died at his home following a long illness. Maury, as he was affectionately known to his friends, had a most distinguished career as a scientist, physician and dermatologist. He was, however, not only a brilliant scholar, but he was also a loving husband and father. More especially he was a man in the very best sense of the word. He had so many attributes that it would be most difficult even to attempt to summarize them. His interests in matters aside from his professional life was outstanding. As just one example of this, the Bulletin of the Yale Medical Library of March, 1958 mentions Doctor Strauss' preparation of an exhibit of his collection of medical stamps. Needless to say, he was a long-time friend of the library. A Memorial Book Fund has been established in his memory at the Yale Medical Library. Any members wishing to contribute may do so by writing the librarian.

Dr. Strauss was born in New Haven, Connecticut on January 3, 1893. He received his bachelor's degree from Yale in 1914 and his M.D. from the College of Physicians and Surgeons, Columbia University, in 1917. He was married to Carolyn Ullman on June 12, 1923. His son, John Steinert

Strauss, is assistant professor of dermatology at Boston University.

Dr. Strauss worked at the New York Postgraduate Hospital and Medical School from June 1, 1927 to February 1, 1929. He was associate attending dermatologist to the Dispensary of the New York Postgraduate Hospital and Medical School from February 1, 1929 to July 18, 1932, assistant clinical professor of dermatology, Yale University School of Medicine, June, 1932 to June, 1936, associate clinical professor of dermatology, Yale University School of Medicine from June, 1936 to June, 1943, clinical professor of dermatology from June, 1943 until 1955 when he was made clinical professor emeritus of dermatology at Yale University School of Medicine. He had numerous hospital positions including attending dermatologist at the New Haven Hospital, Grace Hospital and later Grace-New Haven Community Hospital from June, 1937 until the time of his death. He was director of the New Haven Municipal Venereal Disease Clinic from 1920 to 1945. He was attending dermatologist at St. Raphael's Hospital, consulting dermatologist at Laurel Heights Sanatorium, consultant in dermatology at the Newington Veterans Administration Hospital, at the New Britain Hospital, the Griffin Hospital and the Norwich State Hospital. He was a past president of the New Haven Medical Association. He was a member of the New Haven County Medical Association, Connecticut State Medical Society, the American Medical Association, the New England Dermatological Society of which he became president from 1951 to 1952, a fellow in dermatology and syphilology of the New York Academy of Medicine. He was a diplomate of the American Board of Dermatology and Syphilology. He was a member of the Society for Investigative Dermatology, the American Academy of Dermatology and Syphilology, and the American Academy of Compensation Medicine. He was a member of Phi Beta Kappa and of Sigma Xi and also a member of the New York Academy of Sciences.

In World War I Dr. Strauss was a lieutenant in the Army of the United States.

In addition to the exhibition of his medical stamps at Yale University Medical Library, Dr. Strauss also exhibited them at the Cleveland Health Museum, the Milwaukee Art Institute, the American Academy of Dermatology and Syphilology in Chicago, and the Smithsonian Institution. Both at Cleveland and Chicago, he was awarded prizes in the contests that were held there.

From 1929 to 1952 Dr. Strauss was the author of forty papers which were published in numerous journals and books.

Those who knew Maurice Strauss admired his brilliant mind, his keen wit, his interest in civic and other important affairs and they especially admired his devotion to his family and his friends. His courage and strength in his last illness were of the greatest magnitude. As was stated by Rabbi Goldburg at the last services held for him: "The sorrow and grief in parting with Dr. Maurice Strauss is partially assuaged by the knowledge that our loss of him is his blessing. He is at last at rest and peace."

Daniel F. Levy, M.D.

Kenneth Kyle Kinney, M.D.
1898 - 1957

Dr. Kenneth Kyle Kinney died on November 29, 1957 of coronary thrombosis at the Windham Community Hospital in Willimantic. He is survived by his wife, Mrs. Claire Kinney, and two daughters, Katherine and Candace.

Dr. Kinney was born on January 4, 1898 in Mason City, Iowa, where he received his primary education. In 1921 he graduated from the University of Iowa Medical School, and served his internship at the Seattle General Hospital, Seattle, Washington. His training in radiology was obtained at the Peter Bent Brigham Hospital in Boston under Dr. Merrill Sosman.

Upon completion of his residency, he moved to Willimantic in 1926 and thus became the first qualified radiologist to practice in the entire eastern part of the State. As such, he was appointed radiologist for St. Joseph's Hospital in Willimantic, predecessor of the Windham Community Hospital, the W. W. Backus Hospital in Norwich, the Day-Kimball Hospital in Putnam, the Westerly Hospital in Westerly, R. I., as well as consulting radiologist to the State Hospitals in Norwich and Mansfield. For several years prior to his death he devoted his entire time to the Windham Community Hospital.

He was a diplomate of the American Board of Radiology, a member of the Radiology Society of North America, a Fellow of the American College of Radiologists, and past president of the New England Roentgen Ray Society.

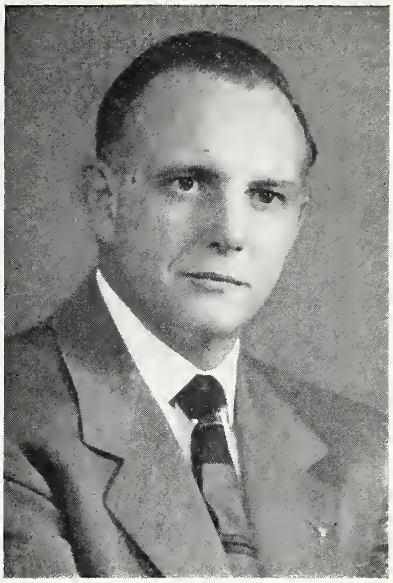
Among all his colleagues he was respected for his keen clinical perception, his solid knowledge of the interpretation of disease by x-ray, and its application as a therapeutic agent in the control of malignant disease.

His buoyant zest for life makes his untimely death even more tragic. His enduring legacy is the profound contribution he made as a pioneer radiologist in elevating the standards of medical care in all of the institutions with which he was associated.

Henry McGill Young, M.D.
1918 - 1957

Death came prematurely to Dr. Henry M. Young on December 31, 1957 at the New England Deaconess Hospital in Boston. Dr. Young died of cancer, a disease which he had been combating while president of the New Britain Cancer Society. Stricken with the disease in the spring of 1957, he went to Boston where he had spent many years in training for his chosen field of surgery. He chose to have his operation there because he was aware of the diagnosis and did not want pity showered upon him by his numerous friends and colleagues.

Following his operation he returned to active practice and when the dread disease began to exact its toll, Henry did not reveal his plight to anyone. He continued to operate in his usual exact and methodical manner and never complained of the severe pains which were gripping him. He would always find time to stop and converse with his colleagues, be it professional, sports, civic or business matters. He was a busy physician but somehow always found time for discussion with his colleagues.



Dr. Young

While at Holy Cross he did himself honor as attested by his Cum Laude degree. He always held his college close to his heart and through the years following his graduation maintained the dear friendship of his instructors at that institution. During his trying days at the Deaconess Hospital he was visited many times by priests from Holy Cross. He had resigned himself to his ultimate fate, but being the good Christian that he was, he maintained his courage and strong faith to the end.

A noble tribute was paid to Dr. Young by Father Clancy, an instructor of his at Holy Cross, now professor at Fairfield University. When Henry was on his death bed Father Clancy said, "I was proud of you when you received your degree at Holy Cross; I was proud of you when you received your medical degree, and now that you are dying I am prouder of you than ever before."

As senior attending surgeon at the New Britain General Hospital he was held in high esteem by his fellow physicians. As stated by Mr. Robert Kniffen, managing director, a great loss was suffered by the medical staff in the passing away of Dr. Young. During his few years in the medical profession he became secretary of the New Britain Medical Society and then vice-president. He contributed much toward the progress of our Society. He served on many of its committees and always offered helpful suggestions in the solution of many of our problems. Henry found time to serve on the credentials committee and the Board of Directors of the Hartford County Medical Association. I am sure he will be missed by members of these bodies, and it is tragic that he could not have given service for a longer period.

During his terminal illness and since his death, hundreds of letters have been sent to his most devoted wife, Norma. It would be repetitious to quote these many letters. However, in essence, his host of friends expressed the same thought: Dr. Henry Young was a fine surgeon, a devoted Christian, a gentlemen, and a friend to his colleagues and the entire community. In the passing of Henry at 39, I have suffered a personal loss. The memory of this dear friend will remain as an everlasting monument of a brave man and a loyal friend. That God called him at this time tells me only that there was a place in Heaven for him, where he will watch over his dear wife and three children, Kathleen, Christopher, and Kevin.

Born in New Britain, son of Henry L. Young and the late Anna McGill Young, he attended local schools, and was graduated from New Britain High School. He was graduated from Holy Cross College and the College of Physicians and Surgeons of Columbia University, New York. He interned and held an assistant residency at Bellevue Hospital, New York City, followed by a fellowship in surgery at Lahey Clinic, Boston. Later he served a residency at Boston City Hospital. Beside his wife and three children, he is survived by his father.

Harry A. Parlato, M.D.

The Third Party in Medicine

At the Western Conference of Prepaid Medical Care Plans held in Portland, Oregon in December, 1957 Raymond M. McKeown, a Portland physician, told the delegates that the concept of the "third party" in medicine represented one of the most important questions facing the profession.

He indicated that organized groups and the general public are becoming increasingly inclined toward complete coverage for medical costs. "The full extent of this demand," Dr. McKeown said, "remains to be determined. That it exists and is becoming very vocal is unquestioned." Because of this, he suggested that the profession must "anticipate medical economic trends" and be prepared "to determine the medical needs of the general public, and meet them by the most acceptable means available."

He warned that extensions of Federal paternalism through social security and political pressures favoring more extensive public health and welfare programs make it imperative that the people be alerted to the inevitable price of such programs. "Whether the public has developed simultaneously a proper evaluation and awareness of the consequences of many of these projects is of critical importance," Dr. McKeown emphasized. "Students of medical economics are agreed that a fundamental demand exists for a factual educational program directed at our people, and even some physicians, to enable them to more realistically evaluate these proposals for more and more medical coverage. If existing prepaid medical plans of our nation regardless of origin or administration did nothing in 1958 but disseminate widely, through all available means of communication, factual information on these subjects great good would result." Dr. McKeown emphasized the critical need for statesmanlike leadership in medical practice today.

Dr. Robert L. Novy, a Blue Shield pioneer, points out that since Blue Shield was created a whole new generation of physicians has come into practice who know nothing of the struggle and sacrifice of its founders. Many of these physicians take Blue Shield for granted.

Blue Shield has three aims in 1958: (1) to counteract indifference, apathy and complacency in its Plans; (2) to develop research in order to extend the knowledge and understanding of the basic factors of marketing affecting both product development and enrollment; and (3) to increase enrollment efforts to meet the vigorous competition in this field.

ANNUAL REPORTS
OF THE CONNECTICUT STATE MEDICAL SOCIETY
1957 - 1958

REPORT OF THE CASUALTY PLANNING COMMITTEE

Reginald C. Edson, Chairman

Luca E. H. Celentano	William R. Maniatis
Francis Gallo	Mario L. Palmieri
John F. Hughes	Nicholas T. Phillips
James W. Major	Victor G. H. Wallace

The Chairman of your Committee on Casualty Planning has met twice with the State Council of Civil Defense, has met once with the Committee on Casualty Planning of the State Medical Society and has attended the Eighth County Medical Society's Civil Defense Conference in Chicago on November 9 and 10, 1957, as your representative. I shall briefly give my impressions resulting from these activities.

Civil Defense and the State Medical Society—There has been established in each state as part of the State Civil Defense Program a survival plan project, with the responsibilities of preparing an over-all survival plan for the state. The general national Civil Defense outline of Health Services divides such services into health protection services and medical care services, assigning the detailed planning for the former to the Commissioner of Health and the detailed planning for the medical care services to the State Medical Society. It is requested that such detailed plans be prepared and be submitted to the Survival Plan Project Division of the State Civil Defense for coordination into the over-all state-wide plan. It is suggested that the organization and survival operational plan for the medical care services should include plans for the following:

A. Medical and surgical care for non-casualty needs.

B. Medical and surgical care for casualties in post-attack situations.

C. Medical and surgical care for "special assistance" groups during and after evacuation.

D. Establishment of emergency hospitals.

1. Expansion of hospitals in reception areas.
2. Relocation of hospitals, staffs, equipment and patients under strategic and tactical evacuation.
3. Location, storage, maintenance, establishment and operation of 200-bed emergency hospitals.
4. Recruitment and training of personnel for establishment and operation of 200-bed emergency hospitals.

E. Establishment of First Aid Stations.

1. Location, storage, maintenance, establishment and operation of emergency first aid station equipment and supplies.
2. Recruitment and training of personnel for emergency first aid stations.

The Civil Defense Conference, American Medical Association, Chicago, November 1957—The present Federal Civil Defense Administration's new priorities are geared toward survival of the nation rather than survival of the individual and were enumerated as follows according to priority:

1. Maintenance of health and production of non-casualty survivors.
2. First aid to minimum casualties and rapid return to production.
3. Care of children.
4. Care of casualties.

Note: There was an admitted need for the psychological preparation of the public to accept these new priorities as necessities.

Although no national health plan has yet been prepared, the American Medical Association has contracted to: 1) study planning, 2) develop training, 3) recommend organization. The American Medical Association Committee's responsibilities are as follows:

1. To furnish advice and recommendations for minimum survival plans.
2. To furnish advice and recommendations for the use of professional and pari-medical personnel in pre-attack and post-attack situations for casualty and non-casualty survivors.
3. To furnish advice for the training of medical and pari-medical groups.
4. To furnish advice for post-attack sorting of casualties.

Civil Defense Emergency Hospitals—Experience suggests that these should be allocated to established hospitals and responsibility should be assigned to the hospital staff under local authoritarian control. There should be an opportunity for such selected hospitals to be able to set up and become familiar with a sample Civil Defense emergency hospital. One such sample set-up could serve the State of Connecticut if it were made available to the staffs of selected hospitals where Civil Defense emergency hospitals had been assigned.

Impressions of the Chairman of your Committee—Plans to cope with thermonuclear warfare are outdated before they can even be formulated. The plans discussed with the State Civil Defense prior to the Chicago meeting and the plans discussed at the Chicago meeting did not take into effect the ICBM nor did it take into account the implications of the Russian satellites. Plans should be formulated, however, even though they may become inadequate. Preparation of such plans should be in the hands of a full-time, highly-qualified physician member of State Civil Defense who would, thus, have access to Civil Defense secretarial and technical personnel and who should have the opportunity for unlimited counsel from the State Medical Society.

Coordination of disaster planning on a hospital, regional, county and state basis can be the beginnings of interest in planning, which might not only serve as a pattern for natural disasters short of thermonuclear warfare but could play a sizeable part in thermonuclear warfare under "favorable" conditions. The Civil Defense emergency 200-bed hospitals should be accessible for natural disasters as well as for thermonuclear catastrophes. If such units were assigned to strategic existing hospitals and were stored in an area where they might be most useful, it would then make some sense to have one such unit accessible throughout the State to be used by individual hospitals to familiarize their staff and personnel with the contents of boxes, how to set up the hospital and would permit improvement in the present packaging and equipping of such hospitals.

I would, therefore, suggest that the State Medical Society:

1. Urge the appointment of a full-time medical director to the State Civil Defense Administration to take the place of Dr. Keeler.

2. Encourage county medical societies to set up local correlated and coordinated disaster programs.

3. Encourage adequate assignment of Civil Defense emergency hospital units and opportunities for medical and parimedical personnel who would have to staff these to become familiar with them.

Respectfully submitted,
R. C. Edson

REPORT OF THE MANAGING EDITOR OF THE JOURNAL

The past year has been one of change for the Journal. If change indicates progress it must be beneficent. First of all, Dr. Marshall C. Pease of Ridgefield, who has contributed the From Our Exchanges section for over five years, resigned from the Board and because of his wife's health and his own advancing years has moved to California where one of his sons is on the faculty of a medical school. Marshall Pease has been a loyal supporter of the Journal and it is with regret that we were forced to accept his resignation. In addition, his personal friendship has contributed one of those intangibles which always makes an editor's job more enjoyable.

Because of the serious illness of our printer, Mr. Donald P. Bullis, and because of the increasing complexity involved in producing the finished product, we were warned in the autumn that it probably would be necessary for us to look for another printer. This warning became an actual fact in November when the Whaples-Bullis Company served verbal notice that the last issue they would be able to provide us would be that of December. Thereupon seven printing establishments in Connecticut with sufficient equipment to do the job and one other of known reputation in Vermont were approached and from this number bids were received from six. The present printing company was selected for three reasons: (1) it was highly recommended by Mr. Bullis whose interest in our Journal has been evident during our many years of business relationship; (2) it has equipment sufficient to meet our needs although not as large a plant as many others which were considered; (3) its terms were the lowest of the entire list and on a par with what we have been paying during the past few years.

The third major change came about as the result of the resignation of Dr. H. M. Marvin as Literary Editor after carrying on in that capacity for two and one half years. The State Medical Society and the Journal Editorial Board owe Dr. Marvin a deep debt of gratitude for his willingness to devote some of his valuable time and talents to carrying out a task which I am quite sure was not easy because of his many other commitments. To say that his able assistance was greatly appreciated is putting it mildly. The House of Delegates at its meeting in December approved the appointment of a successor to Dr. Marvin, namely, Dr. Allan Ryan of Meriden whose enthusiasm and ability have already been demonstrated.

Murmurings among the craft relative to the cost of the Journal have come to the ears of the Managing Editor. Some would have a more modest publication, perhaps just a house organ with no scientific material included. Others would eliminate this section and that section. Having lived with the Journal for over 21 years and at the same time grown that much older, perhaps I can throw a little light on the problem and at the same time dispel some of the heat. I believe the purpose of the Connecticut State Medical Journal is to keep its readers informed of the latest developments in medical practice in our State and in our nation; to keep them informed of all the activities of the State Society and of the county organizations insofar as the latter is possible, and to afford the members of our Society an opportunity to develop their scientific interest and their literary talents by publishing papers of their own production and from their own experiences. At no time has the Journal pretended to afford its readers the latest in scientific research, although some of the papers published rank with the best in more erudite medical publications.

Concomitant with the growth in our Society and the increasing interest in the Journal evidenced by many of its readers, there has developed a greatly expanded increase in the advertising program of the pharmaceutical companies in the United States. Color suddenly has become very popular in reproducing advertisements and in addition inserts are on the increase. Ten years ago the state medical journals carried no colored advertisements and no inserts. This situation is not confined to our own Journal but pertains to practically all medical journals which carry any advertising and to the group of state medical journals whose advertising is handled through a central cooperative bureau in Chicago. At the same time as this change in the advertising program has been going on, there has taken place an increase in printing labor costs. Add to that the increased labor involved in reproducing several colors in each issue and the result has been a doubling in printing costs. Some of the larger plants in the Middle West are now equipped with electronic devices which reduce the operating costs but as yet such equipment in Connecticut is almost unheard of. In spite of an endeaver each month to reduce the number of so-called runs made by the printer and in spite of a sizeable increase in the number of advertising pages, the cost of Journal operations for 1957 exceeded the total income by $4,391.08. One might say, why not reduce the size of the Journal? The amount of advertising cannot be reduced without jeopardizing the entire advertising program upon which the Journal is dependent. On the other hand, in order to keep a balanced publication there must be maintained a definite ratio of scientific and editorial pages to advertisements.

The editors have been gratified by many favorable comments. In particular should be noted the favorable reception given the financial article by Mr. Dacey in the December issue with a second installment appearing in January, 1958. The author made the contribution without any expense to the JOURNAL. The increase in the number of papers received from members of the Society has been gratifying. The quality of these is definitely improving. We hope it is a favorable sign of what we may expect in the future.

The work in the office of the JOURNAL has increased each year. For the faithfulness in the execution of the many details great credit is due the editor's assistant, Mrs. Vivian C. Feriola. With Dr. Marvin as chairman of the Board and the helpful suggestions, editorials and critical appraisal of manuscripts by members of the Board, the year has been an enjoyable one and I hope a profitable one for our readers.

Respectfully submitted,
Stanley B. Weld

REPORT OF THE COMMITTEE ON POSTGRADUATE EDUCATION

Arthur Ebbert, Jr., Chairman

Gray Carter
Malcolm M. Ellison
Martin E. Gordon
William J. Lahey
John C. Leonard
Howard Levine
Herbert Levine
Marvin Lillian
Robert M. Lowman
Oliver J. Purnell
A. Rocke Robertson

This committee devoted its attention during the past year to planning and arranging the 32nd Connecticut Clinical Congress, which was held on Wednesday and Thursday, December 11 and 12, 1957 at the Hotel Statler in Hartford. Although comments by those who attended this congress were highly complimentary of the program, the attendance showed a sharp decrease as compared with the previous year. Comparative registration figures for 1956 and 1957 are shown below:

CLINICAL CONGRESS REGISTRATION

1956	DECEMBER 5	DECEMBER 6	TOTAL
Members	159	54	406
Non-members	22	4	40
	181	58	446
Guests — (Interns — residents)	109	43	165
Total	290	101	611
1957	DECEMBER 11	DECEMBER 12	TOTAL
Members	125	31	309
Non-members	7	....	12
	132	31	321
Guests — (Interns — residents)	57	44	103
Total	189	75	424

These figures reveal that registration by members of the Society decreased by almost 25 per cent of the previous year; the per cent decrease was greater on the second day; registration by non-member, practicing physicians fell 70 per cent; and although total registration of guests (interns and residents) decreased, there was no significant change on the second day. It should be noted that a snowfall on the evening of December 5 resulted in hazardous driving conditions the following day and undoubtedly influenced attendance. It is also felt that scheduling this Congress only two weeks prior to Christmas may have unfavorably influenced attendance; however, no earlier dates without serious conflict were available when these arrangements were made.

After a review of the 1957 Clinical Congress, the committee decided that there were good reasons for continuing this postgraduate educational program and voted to recommend that a Congress be held in 1958. It seems desirable to schedule this Congress in October or early November to minimize the chance of hazardous driving conditions and avoid conflict with holiday activities. The committee is exploring possible arrangements for a 1958 Congress. If our plans are approved by the Council, the committee is certain that an interesting and worthwhile program can be arranged.

Respectfully submitted,
Arthur Ebbert, Jr.

REPORT OF THE EDITORIAL BOARD OF THE CONNECTICUT STATE MEDICAL JOURNAL

Allan J. Ryan, Chairman

Frederick A. Beardsley
Gerald J. Carroll
Hugh J. Caven
Frederick C. Gevalt, Jr.
Mark A. Hayes
William H. Horton
Samuel D. Kushlan
H. M. Marvin
Charles H. Peckham
Clair Rankin
Michael S. Shea
Mark Thumin
Stanley B. Weld

The past year has not seen any major innovation in the editorial policy of the JOURNAL. A new column has been started which will feature news and articles relating to Connecticut Medical Service. Its objective is to give our readers a broad perspective of the problems faced by CMS and to relate these problems to happenings in this field in neighboring states and elsewhere.

A series of articles on common eye disorders written for the non-specialist is now running in the JOURNAL. There have been a considerable number of articles this year on insurance and financial problems as they relate to medical practice. They appear to have been received with unusual interest by those in the insurance field as well as our physician readers.

The entire issue of July 1957 was designated as a memorial to the late Dr. Thomas P. Murdock. In addition to many resolutions and tributes to his honor and the obituary notice, the scientific section of this issue consisted of sixteen speeches and articles (in two of which he was co-author) reprinted from many sources.

The number and general quality of scientific articles currently being received for publication by the JOURNAL is not high. Our future success depends to a considerable extent upon the willingness of the many Connecticut physicians now producing original papers and case reports for journals of national circulation to contribute at least a small part of their output to our JOURNAL.

The new editor is conscious of the high standards set by the two previous literary editors, Dr. Thoms and Dr. Marvin, and hopes to be able to maintain them intact. Dr. Thoms continues to contribute many of the beautifully written pieces which appear in the "Historian's Notebook." Since Dr. Marvin continues as a member of the Editorial Board, we can also hope for more of his polished and thoughtful pieces. Dr. Pease will be greatly missed from our pages, by those who have enjoyed his trenchant briefs of current literature as published during the past years in "From Our Exchanges."

Respectfully submitted,
Allan J. Ryan

REPORT OF THE COMMITTEE ON HOSPITALS

George H. Gildersleeve, Chairman

Arthur J. Adams
M. David Deren
William A. Goodrich
Vincent A. Gorman
Frederick B. Hartman
Herbert Levine
Bernard F. Mann
Charles T. Schechtman
Michael S. Shea
Alfred B. Sundquist
Vernon E. Thomas

The Committee on Hospitals has held five meetings during the past year. Four of these meetings were joint conferences with the Council on Professional Relations of the Connecticut Hospital Association.

At the joint meetings, discussions have taken place on professional activity study as an aid to Medical Staff Records Committees, on the report of the Committee to Review the Functions of the Joint Commission on Accreditation of Hospitals, on the organization and administration of Poison Information Centers in Connecticut, and General Practice Sections in Hospitals.

At several of these meetings a guest speaker was present and helped to crystallize the problem under discussion. Dr. Alexander J. Tutles of the Connecticut State Department of Health was present at the October meeting and discussed the Poison Information Centers as authorized by Public Act No. 583. This discussion resulted in the suggestion that the Connecticut State Department of Health be asked to consider the formation of a Joint Advisory Committee of the Connecticut State Medical Society and the Connecticut Hospital Association to carry on the Articles of Public Act No. 583. This Advisory Committee has already been appointed. At another meeting, Dr. John P. Bachman, Medical Director, State Department of Welfare, described Public Act No. 203, "An Act Concerning Adoption of Children." At another meeting, Dr. Edwin R. Connors of Bridgeport discussed General Practice Sections in Hospitals.

Much time has been consumed at these joint meetings in discussing a guide "Standards and Recommendations for Hospital Care of Maternity Patients," prepared by the Subcommittee on Minimum Standards for Hospital Care of Maternity Patients of the Committee to Study Maternal Mortality and Morbidity of the Connecticut State Medical Society. A subcommittee appointed from the group studied the "Standards and Recommendations for Hospital Care of Maternity Patients," and made certain recommendations. This report of the subcommittee was discussed, accepted, and referred back to the Council of the Connecticut State Medical Society with the suggestion that certain parts of the "Standards and Recommendations" be rewritten. This was done and the matter was again referred to the two committees. After a lengthy discussion it was voted to refer the entire subject of "Standards and Recommendations for the Hospital Care of Maternity Patients" back to the parent organizations for whatever action they may wish to take with the explanation that the Conference cannot approve the "Standards" as studied by its subcommittee or as rewritten since, with especial reference to Section 1 regarding organization of staff, definition of terms, recommended general policy of obstetrical department consultations and management of the office patient.

These joint meetings between the Committee on Hospitals of the Connecticut State Medical Society and the Council on Professional Practice of the Connecticut Hospital Association have been exceptionally well attended and have proven themselves very productive and worthwhile.

Respectfully submitted,
George H. Gildersleeve

REPORT OF THE COMMITTEE ON INDUSTRIAL HEALTH

John F. Kilgus, Jr., Chairman

Fred A. Anderson
Preston N. Barton
Norton Canfield
Roland Z. Carignan
Clement C. Clarke
John N. Gallivan
Richard J. Hinchey
J. Howard Johnston
Benjamin Katzin
John F. Kelly
Thomas F. V. LaPorte
William Lee
Daniel F. Levy
Mervyn H. Little
A. Duncan MacDougall
J. Wister Meigs
Israel S. Otis
Norman Righthand
William M. Stahl, Jr.
Joseph J. Stapor
Ellwood C. Weise
C. Frederick Yeager

This being a legislative year the committee was faced with the problem of reviewing all proposed legislation which had in any way to do with occupational medicine, this of course included any and all proposed changes in the compensation laws. All pertinent bills were studied carefully by the committee and recommendations made concerning the more important ones to the State Society's Legislative Committee. It is gratifying to know that all but one or two of the bills opposed by the committee failed to become laws.

The committee was faced with several controversial issues during the year. The question of whether or not industrial physicians should administer poliomyelitis vaccine to the employees of their plant posed a question which was very difficult to answer in view of the American Medical Association's stand urging that the vaccine be given by all physicians regardless of their specialty. It was the consensus of the committee that this did not fall within the scope of the industrial physician and should be left in the hands of the family physician unless an emergency existed. A similar problem arose in the matter of administering influenza vaccine by the industrial physicians. The committee decided that an influenza epidemic was impending and that it was highly desirable to immunize as many persons as possible in as short a time as possible, and gave its approval to the administering of influenza vaccine to employees by the plant physician.

Dr. Daniel P. Griffin of Bridgeport was nominated by the committee to receive the Governor's Award for the physician having made an outstanding contribution to the employment of the physically handicapped. Both the Council and the Governor's Committee on the Employment of the Physically Handicapped endorsed the committee's nomination and Dr. Griffin received the Governor's Award in Hartford at a session of the House of Delegates on December 11, 1957.

It was with deep regret that the committee announced the death of Dr. Andrew Jackson on May 16, 1957. Dr. Jackson was for many years a member of this committee and a past chairman. He was one of the committee's most energetic workers and at the time of his death, chairman of the committee's subcommittee on Workmen's Compensation. The loss of Dr. Jackson will be keenly felt by the committee.

The chairman represented the committee at the 18th Annual Congress on Industrial Health conducted by the Council on Industrial Health of the American Medical Association in Milwaukee on January 26 through 29, 1958.

As the committee brings to a close its activities for this year it is engaged in studying the American Medical Association's scope, etc., to determine whether or not it is contrary in any respect to previously adopted policies by the State Medical Society or to existing state laws.

The chairman wishes to take this opportunity to thank all the members of the committee for their cooperation and support and also to express his appreciation for the assistance rendered by Dr. Barker and his staff and by the Council.

Respectfully submitted,
John F. Kilgus, Jr.

REPORT OF THE COMMITTEE ON MEDICAL EDUCATION AND LICENSURE CONNECTICUT MEDICAL EXAMINING BOARD FOR THE CALENDAR YEAR 1957

John D. Booth, President

C. Louis Fincke	Carl E. Johnson
Louis P. Hastings	William R. Wilson

Creighton Barker, Secretary to the Board

The Connecticut Medical Examining Board is the Society's Committee on Medical Education and Licensure and this report of the Committee is the official report of the Medical Examining Board.

The Committee reports with regret the death of one of its valued members, Dr. John H. Bumstead. In accordance with Connecticut statutes the President of the Society, Dr. Walker, nominated Dr. William R. Wilson, pediatrician, New Haven, to serve the unexpired term of Dr. Bumstead and Governor Ribicoff appointed Dr. Wilson on August 15.

Dr. Bumstead served on the Board for eight and one half years and the following was inscribed in the minutes of a meeting of the Board held July 30. "When Dr. John Bumstead joined this Board in January, 1949 after appointment by Governor Shannon to succeed Dr. Thomas Murdock, he brought to it the highest medical ideals, a broad professional culture and a blithe and thoughtful spirit. With his untimely death on July 29 the Board suffers a grievious loss and he will be missed beyond measure because of his fair and understanding contributions to official actions and because he was a friend who was always good to see. The members of the Board, in this regular meeting held and where we were looking forward to having him present, express our sadness on his departure and our infinite remembrance of the years he spent with us."

Connecticut statutes require that the Board hold six regular meetings each year and these were held in 1957 and one special meeting. At this special meeting a physician was officially reprimanded for being guilty of "failure to keep a record of narcotic drugs received by him and a record of all such drugs administered," based on charges brought by the State Department of Health under Connecticut law.

The steadily increasing number of graduates of foreign medical schools seeking license to practice in this state presents an ever widening problem to the Board and the examining boards in other states. It is becoming obvious that without these foreign trained physicians there would be a growing shortage of doctors to take care of the American people and it has recently been reliably predicted that, if the population reaches two hundred thirty million in 1975 as forecast, the country will require 2,000 more new physicians each year than are now produced by medical schools in America and to do this will require the building of twenty to twenty-five new medical schools and a capital investment of a billion and a quarter dollars. The problem that faces state medical examining boards is to maintain and improve licensing standards so that the services of these in-migrants can be utilized in American civilization, and the quality of medical service not deteriorate. This Board sought and obtained amendment to the Connecticut Medical Practice Act by the General Assembly of 1955 to allow graduates of unapproved foreign medical schools to petition the Board for admission to its examinations. Such candidates are required to have a minimum of three years of approved supplemental medical training in the United States and this requirement has recently been refined to include at least one year of training in general (not specialty) medicine. 159 such petitions were granted during 1957 and of these petitioners 50 have appeared for examination with varying results.

Although it is too early to exactly evaluate the results of this change in Connecticut law it may be said that in the year and a half of its operation results have brought a measure of satisfaction to the Board. More than half of the inquiries concerning licensure received by the Board come from graduates of foreign medical schools, the number of petitioners under the new law have increased since its provisions have become more widely known and the end is by no means in sight.

During the year three hundred and fifty-one persons were certified as eligible for licensure, the highest number in the history of the Board. The methods for obtaining such certification were as follows: 183 were certified on the presentation of certificates issued by the National Board of

Medical Examiners; 67 presented acceptable licenses issued by nineteen other states and 101 were certified after satisfactorily passing the written examinations given by this Board. 141 individuals took the Board's examinations 158 times, 101 of these candidates were successful and of the 158 examinations taken 57 were failed.

The states from which the greater number of credentials were presented were:

New York	21	Texas	4
Pennsylvania	6	Illinois	4
Virginia	6	California	3
Maryland	5	Ohio	3

Eleven states were represented by one or two candidates. The practice of issuing credentials for licensure to graduates of foreign medical schools based on endorsement of other state licenses has been withdrawn and all graduates of foreign medical schools must now take and pass the examinations given by this Board.

Of the 141 written candidates 125 were graduates of 60 medical schools located outside of the United States and the Dominion of Canada. These 125 individuals took the examination 155 times and 96 of them finally passed, the remainder failed, a failure rate of 23.2 per cent. This is considerably lower than previous experience with foreign graduates, a circumstance that is undoubtedly due to the Board's requirement of the three years of supplemental training in the United States. Of the 60 foreign schools from which candidates came the higher numbers were graduates of the National University of Ireland (three branches)—21; Queens University, Belfast—5; Trinity College, Dublin—1; a total of 27 graduates of Irish Schools. Seven from schools in England and one from Scotland. Graduates from Swiss schools provided twenty candidates and the medical schools of Italy eight candidates. The remainder came from such remote sources as India, Turkey, Santo Domingo, South America, Greece, Austria, Germany, Hungary, The Netherlands, Belgium, China, Spain and Portugal.

The American schools from which the larger number of candidates came (credential issued mainly on endorsement of certification by the National Board or other state licenses) were:

Columbia P & S	24
New York Medical College	23
Yale	22
Harvard	16
New York University	14
Tufts	14
Georgetown	9
Boston University	7
State University of New York, N. Y.	7
State University of New York, Syracuse	6
Jefferson	6
Cornell	6
Johns Hopkins	5
Northwestern	5
University of Vermont	5
University of Pennsylvania	4

and 16 schools each had less than four graduates.

The issuance of educational permits for graduates of unapproved foreign medical schools to serve as interns or residents in Connecticut hospitals continues to be a valuable service rendered by the Board because it makes available to the hospitals of Connecticut such graduates to serve on their house staffs. Sixty-nine new permits were issued in 1957 and forty-five renewed which is another way of stating that more than 100 unapproved foreign graduates are currently serving in hospitals in this state.

The Board wishes to state its high commendation to Mrs. Agnes B. Kennedy for the faithful and painstaking job she has done and because of the increased activity of the Board her Merit System rating has been raised to Administrative Assistant. During 1957 the State leased an additional office from the Connecticut State Medical Society and authorized another employee for the Board which position was filled early in 1958.

The Board is an official agency of the State of Connecticut but not a General Fund operation and depends for its financing upon fees collected from candidates and its budget must remain within that income. However, currently that sum is quite adequate to meet the Board's expenses and in presenting its biennial budget to the Appropriations Committee of the General Assembly it has invariably received understanding cooperation.

This is a somewhat detailed report of the Board's activities for the year 1957 and its present status. What the future holds can only be guessed but based upon its experience during the past ten years it is believed that the Board will discharge its legal obligations to the people of Connecticut and meet its responsibilities in these changing times.

Report prepared by Creighton Barker, M.D., secretary to the Board.

Respectfully submitted,
John D. Booth

REPORT OF COMMITTEE ON PUBLIC HEALTH

Robert R. Keeney, Jr., Chairman

Noah Barysh
Alfred L. Burgdorf
Clarence W. Harwood
H. Patterson Harris, Jr.
Louis P. Hastings
William S. Maurer
Leonard Parente
Marjorie A. Purnell
Robert P. Rogers
J. Harold Root, Sr.
Arthur A. Tower
Edward T. Wakeman
William A. Wilson
Joseph M. Wool

This committee had meetings monthly and spent considerable time and effort on matters concerning the health of the people of Connecticut. Attendance at the meetings was not good this year.

I believe the membership of this committee should be changed somewhat so more of the general practitioners, internists, neurologists, pediatricians and the other members of this very diversified profession would have representation. Attendance at the meetings is of prime importance if our opinions are to truly represent the thinking of our Society.

Many subjects of great importance were considered and acted upon. The continued use of silver nitrate as a prophylactic against ophthalmia neonatorium was advocated. Nursing personnel for chronic and convalescent hospitals was discussed. The Glaucoma Control Program was referred to the Committee on Eye Care for action and approval. The vaccination program for Asiatic Influenza was developed with the State Board of Health and the intradermal method of vaccination approved. This led to a more uniform and widespread use of the vaccine with most encouraging results this year. The important subject of radiation hazards to the public was considered at several meetings and will be the basis for future regulations in the Sanitary Code. The new Connecticut Adoption Law was discussed and during the next year more information on this important subject will be offered to our members to better enable them to be of assistance to their families considering this most important phase of present day life—"Adoption of a Child." A Subcommittee on Nutrition was considered and appointed. The polio vaccine program is still our responsibility and more persons need this protection. Two unanswered questions are still before us:

(1) How soon after birth should infants receive vaccine?

(2) What is the maximum time between second and third Salk vaccine injections.

Suggested Guides to Relationships between Medical Societies and Voluntary Health Agencies were discussed and approved.

This committee will be asked during the coming year to act quickly on many problems and continued interest will be in evidence when future programs of polio and influenza vaccination arise. The new Connecticut Adoption Law will also present many new problems to the medical profession and the public. More widespread use of the Poison Information Centers and plans to prevent home accidents are needed. The year ahead will pose many new interesting and troublesome problems to this committee.

Respectfully submitted,
Robert R. Keeney, Jr.

REPORT OF COMMITTEE ON SCHOOL HEALTH
(Sub-Committee of Committee on Public Health)

Joseph L. Hetzel, Chairman

Connecticut State Department of Health

Stanley H. Osborn
Martha Clifford
James Hart

Connecticut State Department of Education

William J. Sanders
Ruth Byler, ED.D.

Conference Program Committee

Carl Hempel, PH.D., State School Supts.' Ass'n.
Helen Watson, R.N.
Hazel V. Dudley, R.N.
Hester Curtis
Ira Dow Beebe, D.D.S.
Charles C. Wilson
Leonard Parente
Clifford T. Conklin
James H. Root, Jr.
Charles A. Murphy
Alan C. Mermann
J. Harold Root

The Subcommittee on School Health has met regularly and attendance has been good. Dr. Alan Mermann, replacing Dr. Henry Louderbough, has been an active and useful member. Dr. Clifford Conklin has requested that he be dropped as a committee member as, in spite of interest, he has rarely been able to attend meetings. Dr. George Cushman, an able general practitioner with a strong interest in school health, has been appointed to replace Dr. Conklin on this committee. All members have worked hard on the committee, particularly Drs. Byler and Clifford because of their fund of information concerning personnel and activities, their respective State Departments of Education, and of Health. Dr. Ira Dow Beebe ably representing the State Dental Association has been invaluable.

The major accomplishment of the subcommittee the past year has been the Second Connecticut Conference on Physicians and Schools. This involved a great deal of work. A program committee was appointed to set up discussion topics, determine a clear date, find a suitable site and attend to catering needs. In addition to regular committee members Mr. Carl Hempel of the State School Superintendents Association, co-sponsors of this conference, and Dr. Hester Curtis, State Department of Health, were asked to help and ably assisted in this work. The next task was to invite people to the conference and to select some thirty key people as group leaders, etc., about fifty resource people and several hundred participants. Alternates had to be secured for those who could not attend in the first two groups. Each person had to be fitted into the program. The new Manchester High School proved an ideal location for the conference.

Most of the correspondence and other paper work was done by the staff of the State Medical Society office under the competent and watchful eye of Mrs. Lindquist.

At present the committee is engaged in editing the reports fom the discussion groups preparatory to publication and distribution. It is earnestly hoped this will be completed, this year, before the end of the spring school term.

A good deal of relevant literature supplied by the State Departments of Health and Education was distributed at the conference.

Registration for the conference was expertly handled by Dr. Beebe of the Dental Association.

This conference was a success, with an attendance of one hundred and fifty people. Dr. Donald Dukelow of the AMA Bureau of Health Education, who was present, reported "nothing but compliments" when asked to comment.

In the future some means must be developed to secure a better attendance from parents and perhaps some high school students.

The subcommittee selected Dr. Martha Clifford to attend the Sixth National Conference on Schools and Physicians in Chicago as the guest of the Connecticut State Medical Society. Dr. Clifford has prepared three papers derived from that conference for publication, the subcommittee hopes, in the State Medical Journal.

This subcommittee has several times been called on to assist other society committees. It has also responded to several requests from other sources.

Close liaison has been maintained between this subcommittee and the Connecticut State Advisory School Health Council through having several members of this group on the Council.

Respectfully submitted,
Joseph L. Hetzel

REPORT OF THE COMMITTEE ON STATE LEGISLATION

Alfred L. Burgdorf, Chairman

John G. Murray
Winfield E. Wight
Asher L. Baker
Luca E. H. Celantano
Edmund L. Douglass
Alfred Schiavetti

Brac Rafferty
Executive Secretary of the Society
Delegates to the AMA
President of the Society
Chairman, Committee on National Legislation

Every legislative year is unique and 1957 was no exception. There is one recurring phenomenon in all sessions and that is the appearance of new proposals as well as the reappearance of old ones.

The opinion of the State Medical Society carries considerable weight with the members of the Legislature, and it is very important that the official position of the Society be an objective, unbiased one that will reflect its concern not only for the interest of the profession itself, but more important for the broad welfare of the people.

The Society's endorsement of Public Act No. 271, The Labeling of Hazardous Substances; Public Act No. 583, The Establishment of a State Poison Information Center, are a few instances where the Society took a formal position in regard to successful legislative proposals involving the health and welfare of the people.

There were many bills introduced concerning the ophthalmologists of the state because they attempted to define the broad field of optometry. None of these became law except Public Act No. 610 which concerned the appointment of the examining board of optometry. Indications were that this subject will come up for further attempts at legislation.

There was a strong attempt made to change the definition of chiropractic. This was unsuccessful in the 1957 Legislature.

A new law was passed affecting the adoption of children, P.A. 203, which is to take effect July 1, 1958, which eliminates the private filing of applications with the Probate Court except in the instance of certain relatives. The Society formally took no stand in regard to this but referred it to its Committee on Obstetrics and Pediatrics.

A mild Euthanasia bill was introduced but this did not pass.

The perennial catastrophic illness legislation was again introduced but as in years past, it died in committee.

SB 404 was approved by the Committee on Legislation since it was referred to it and previously endorsed by the Council. This would have permitted Connecticut Medical Services to enter the hospital insurance field. It did not reach either the House or Senate floor.

The Medical Society supported the stand of nursing groups in strengthening the restrictions on the use of the term "nurse." This was enacted into law. At the same time the Legislature removed the requirement for citizenship for a registered nurse. P.A. 200.

Certain reorganizational changes of State Health and Medical Departments came about in 1957:

1. The Commission on the Chronically Ill, Aged and Infirm, and the State Tuberculosis Commission were combined into one—"The Commission on Tuberculosis and Other Chronic Illness."
2. The Council of Mental Health was abolished and a Board of Mental Health of seven members, three of whom are physicians, was created.

The proposals for these reorganizational changes came up during the session of the Legislature and the Committee on State Legislation took no formal position in regard to them, although they had voted to approve a proposal which would permit the use of empty beds in tuberculosis sanatoria for the care of patients with chronic diseases.

SB 9 which provided for an appropriation of $500,000 for preparing plans and acquiring a site for a Medical-Dental School was endorsed by the Society's Committee, received favorable support until the time that the money was actually to be voted. It is our feeling that this will again come up in some other form in the 1959 Legislature.

The great interest of members of the medical profession in the reduction of human poisoning was finally climaxed by the passage of P.A. 271, which provided for the labeling of hazardous substances, and P.A. 583 which set up a statewide poison information center in the State Department of Health. This field was well explored in the 1955 session and the legislation enacted was the result of a good deal of cooperative thinking among many different groups.

There were many minor matters which were voted into law which will not be recorded in this report. An example of this type of legislation is P.A. 414 which provides that the written records and reports of a deceased physician may be admitted as evidence in court.

There are also many dangerous proposals introduced that would be to the disadvantage not only of the profession, but to the public as well.

SB 400 which provided for the elimination of emergency commitment procedures for mentally disturbed patients is a good example of that type of proposal.

The experience of the chairman during the past few years has pointed out that more work needs to be done prior to the time the Legislature convenes. The several departments of the state generally have their legislative proposals well in hand late in the fall of the year preceding the legislative period. It is my recommendation that pre-legislative conferences be held with the heads of state departments concerned with health and welfare. Much of the new legislation which concerns the Medical Society could be anticipated by such a device. This would be helpful to the departments as well as to the Society and would make for an orderly analysis of health and medical legislation.

I believe it is wise to point out that many developments take place suddenly during the legislative sessions making it impossible to call a committee meeting, let alone a meeting of the Society's Council. Your representatives, the executive secretary as well as the chairman of the Committee on Legislation are frequently confronted with the necessity of stating the Society's position without benefit of direction from the Council or the Committee.

I believe the Society should give serious consideration to the need for establishing the broad responsibilities of this committee.

During this year an attempt was made to bring the decisions of the Committee on State Legislation to the Council, the policy-making body of the Society. This need for closer relationship between the Council and this Committee is another reason for exploring in the even numbered years as much of the proposed legislation that can be identified prior to the formal filing of bills.

Respectfully submitted,
Alfred L. Burgdorf

REPORT OF THE COMMITTEE ON PUBLIC RELATIONS

Harry C. Knight, Chairman

Harold A. Bergendahl	Ralph L. Gilman
E. Tremain Bradley	John L. Phiffer
James C. Canniff	James H. Root, Jr.
Amos E. Friend	William A. Richardson, Associate Member

Three new services have engaged the attention of the committee during the past year and are now in advanced stages of planning. These comprise establishment of a film bureau for physician speakers; advancement of training courses for medical assistants in cooperation with local medical associations; and a statewide program with the Recruitment Committee of the Woman's Auxiliary to counsel high school students concerning 150 technical and administrative careers allied with medicine.

Sound extension of the community services the committee has sponsored is promised by these new activities. They are based on effective communication with residents concerning physician speakers and films for group meetings; new health career opportunities for students planning to advance their education; and improvement in community college courses for medical secretaries, technologists and other allied medical personnel.

Continued service has been a basic consideration in planning these and other activities. The present program comprises projects which include this principle of continuity. Space does not permit more than a brief outline of these activities, which are set forth as follows:

WRITTEN COMMUNICATIONS

Newspaper Releases—Forty-nine information releases were written during the year for the 25 daily and 50 weekly newspapers in Connecticut. This information also was published at times in newspapers in adjoining states.

Editorial Releases—Editorial comment is invited by these releases which usually contain an information copy of a news release. If a report or other publication is concerned, this is included in the mailing.

Television and Radio Releases—An increasing number of television releases have been used and these are accompanied with photographs and occasionally motion pictures of the news event. All radio stations receive news releases at the same time as the newspapers and these have been widely used.

Professional Journals—Several pages of medical news were written for each issue of the *Connecticut State Medical Journal* and many of these included photographs. Releases also were sent to the *Journal of the American Medical Association*, the *New England Journal of Medicine* and other professional journals. Other publications on the list included the *Connecticut Health Bulletin* of the Connecticut State Department of Health, *Connecticut Pharmacist*, the *Connecticut Quarterly* of the Woman's Auxiliary to the State Medical Society and a number of newsletters.

Newspaper Health Column—This column for Connecticut's 50 weekly newspapers continues to be popular and is now in its tenth year of publication. It illustrates one method of maintaining communication with editors who can influence health progress.

Pamphlets and Brochures—These publications concern the services of national, state and local medical associations and many other subjects allied with medical practice. Requests for publications of this type, both by physicians and community residents, have continued to increase during the past year. Attention of physicians is called to new publications through the *Connecticut State Medical Journal*.

VISUAL COMMUNICATIONS

Television—Five half-hour television programs were produced by the Society's staff during the year as part of the activities of the Connecticut TV Committee for Health Education. The programs concerned the dangers of mechanical quackery, family health care, child health, and health care for the elderly. Each program stressed the importance of selecting a family or personal physician and the value of physician-patient relationships.

The Television Committee is now in its fourth year of operation and has gained national recognition as a sound method of utilizing television for health education in which physicians guide program development. Membership of the committee comprises representatives from 18 statewide health organizations, including the Connecticut State Medical Society, Connecticut State Department of Health, leading voluntary health organizations and four television stations.

The present series of programs, "Accent on Living" is being telecast each Saturday, 4:30 to 5:00 P. M., from the studios of WHCT, Hartford, Channel 18. Time and studio facilities are furnished by the station without charge as a public service.

Films—The showing of films on health and medical care before community, employee and school groups is constantly increasing. Films were shown before more than 40 audiences in Connecticut during the year. Bookings were for the most part arranged through film agencies in New York, but several films were loaned from the Society's offices.

The new film project mentioned in the introduction of this report will provide a more complete service. This will include furnishing not only the film but a projectionist and complete equipment. A Hartford film agency has been engaged and films are currently being selected for the library to be maintained there. These films will be available to physicians for showing at medical meetings or before community groups and they also will be available directly to such groups. A moderate service charge will be made, but the proper maintenance of films and guaranteed showings point to the desirability of this arrangement as contrasted to the present difficulty of film maintenance, the risk of broken films being sent out and the consequent aggravations which this causes.

Exhibits—Ten exhibits concerning emergency medical call plans and other medical association services are now being used for visual displays throughout the state. These exhibits are loaned to local medical associations for community display in the lobbies of post offices, banks, public buildings and in the windows or interiors of central business establishments.

Through arrangements now being completed with the Savings Banks Association of Connecticut, exhibits on emergency medical call plans will soon be started on an itinerary to include more than 40 banks throughout the state, in each of which the display will remain for 30 days. Leaflets concerning the exhibit will be available to bank patrons.

Country Fairs—In cooperation with the Society's Committee on Rural Health and the Woman's Auxiliary, exhibits were displayed this year at 12 Connecticut fairs. The exhibits were designed to portray the value of health examinations and the advantages of membership in Connecticut Medical Service. Pamphlets concerning the services of medical associations were distributed to fairgoers.

SERVICE COMMUNICATIONS

The communications included in these projects accent service rather than information only. They have demonstrated strong appeal and the feature of continuity is perhaps one of their most effective aspects. The Emergency Medical Card, for instance, is carried in wallet or purse and is a frequent reminder of service by physicians and their medical associations.

Emergency Medical Card—Information copies of the emergency card were mailed this year to all Connecticut physicians and many requests have been received for quantity supplies. Copies of the card also were requested by many local and state associations and by many physicians who noted accounts of it in national journals. The Council on Rural Health, American Medical Association and the American Academy of General Practice were influenced by the project to develop similar emergency cards which are now being distributed nationally. The card is designed as a personal record of such medical information as might be pertinent for emergency treatment of a patient who is away from home. It is intended that the card be filled out at the time of a physical examination.

Family Health Record—In the same manner as the emergency card, information copies of the 16-page Family Health Record also have been distributed to physicians. The record is designed so that either an individual or parent can maintain their own record of personal or family health examinations, illnesses, immunizations, hospitalization and other health data.

Information published in the *Journal of the American Medical Association* has brought hundreds of inquiries about the record from many states and from foreign countries. Popularity of the Connecticut record has encouraged AMA publication of a similar record which is now available to local medical associations.

Emergency Call Plans—A survey early in 1957 disclosed that the 18 emergency medical call plans in the state received more than 4,500 calls during 1956. A similar survey is now being conducted to gather information of plan operations in 1957. When this is completed, it is planned to use the information in a news release to acquaint residents with the value of this community service sponsored by medical associations.

OTHER ACTIVITIES

Liaison with community programs developed by county and local medical associations is a continuing activity. This is accomplished through a two-way avenue of communication resulting from membership on this committee of the chairmen of public relations committees at the county level.

County and local associations are playing an active role in the operation of emergency call plans and other community service programs, which vary with location and population density.

The chain of liaison also extends from the committee to the national level and continuous communication with the American Medical Association and other medical and allied organizations is maintained. A valuable link in this interchange is the annual Public Relations Institute sponsored by the AMA and in which the chairman of this committee participates to represent Connecticut.

Other activities which receive considerable time and attention at various seasons of the year comprise Medical Education Week; Science Fairs, a program concerning the activities of 159 high school science clubs; radio health education; and cooperation with allied groups in planning conferences and other activities.

The committee appreciates the interest and cooperation of medical association officers and members for their participation in organizing and operating community service programs.

Respectfully submitted,
Harry C. Knight

REPORT OF THE COMMITTEE ON PROFESSIONAL RELATIONS

Fairfield—Russell A. Keddy, Chairman
Hartford—Charles T. Schechtman
Litchfield—Richard I. Barstow
Middlesex—Joseph Magnano
New Haven—Christopher E. Dwyer
New London—John W. Suplicki
Tolland—William Schneider
Windham—Robert B. Dinolt

Several meetings of the Professional Relations Committee have been held during the past year.

With one exception, the various problems presented to this committee were solved apparently to the satisfaction of all concerned. In all probability the one case which is still under consideration will also be satisfactorily concluded in the near future.

Respectfully submitted,
Russell A. Keddy

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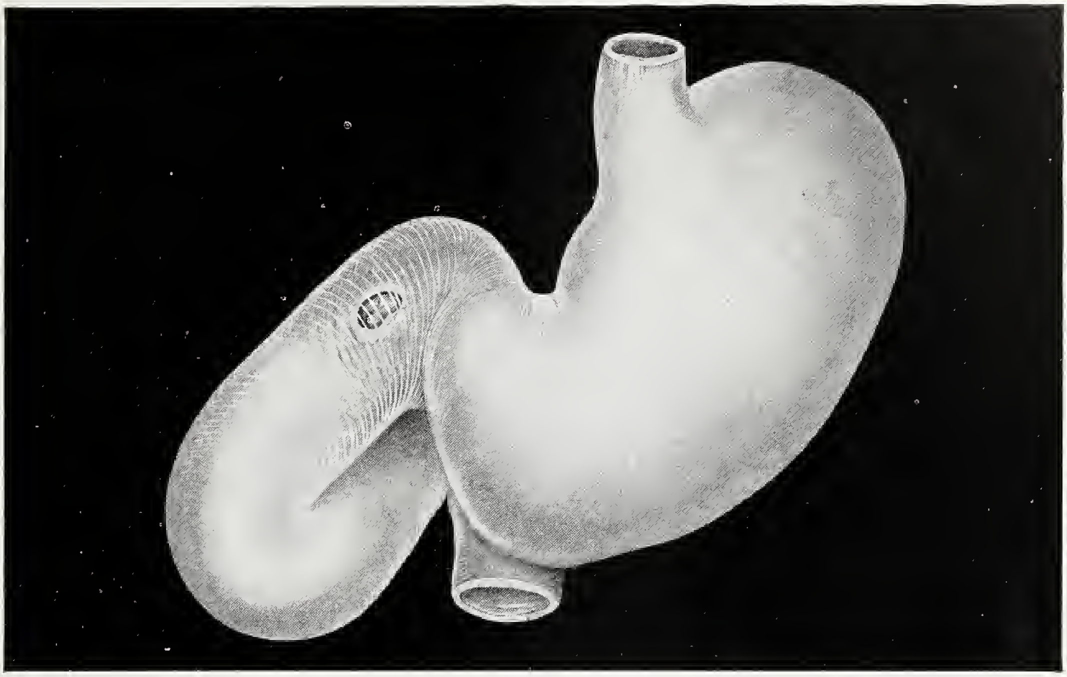

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*Lichstein, J.; Morehouse, M. G., and Osmon, K. L.: Pro-Banthīne in the Treatment of Peptic Ulcer. A Clinical Evaluation with Gastric Secretory, Motility and Gastroscopic Studies. Report of 60 Cases, Am. J. M. Sc. *232:*156 (Aug.) 1956.

SEARLE

FROM OUR EXCHANGES

Two papers on perinatal mortality appeared almost simultaneously and are worthy of discussion. "Perinatal Mortality Associated with Cesarean Section" by Good and Baker was published in *U. S. Armed Forces Medical Journal* (VIII:12, Dec. 1957) and "Perinatal Infant Mortality Associated with a Conservative Policy Regarding Cesarean Section" by Lock and May was published in *Southern Medical Journal* (50:10, Oct. 1957). The first reported on 556 patients delivered by cesarean section from a total of 25,667 (an incidence of 2.2 per cent) over a five and three quarters year period; the second reported on 7,871 infants delivered and weighing 500 gm. or more over a five year period and in this number a cesarean incidence of 1.74 per cent. In the first report there was an infant death incidence of 7.72 per cent associated with cesarean section; the second report showed a corresponding figure of 6.4 per cent.

Some of the conclusions drawn by our two U. S. Naval officers are of interest. They point to the error of doing repeat sections without determining the maturity of the foetus by x-ray. With all the present furor against radiation exposures we shall probably have to look for some other method. Much is said about the type of anesthesia used, especially incriminating cyclopropane, but nothing is said of the anesthesiologist and his ability. Listing atelectasis as a frequent cause of death as they do, leaves much to be desired.

The two writers from North Carolina, although they pursued a very conservative course in selecting delivery by cesarean section, can show very little improvement in their figures over the Navy report. Sixty one per cent of the deaths from all the deliveries, both vaginal and abdominal, in this report were due to prematurity, and of these seven followed cesarean section. As they concluded, "there is no substitute for diligence, vigilance, and good clinical judgment."

* * * *

Having recently seen the youth of West Germany enjoying their glasses of yogurt, "Clinical Uses of Yogurt" by Seneca and Gaymont (J. Amer. Geriatric Soc. J: 11, Nov. 1957) caught my eye. Infant gastrointestinal infection or enteritis responded well to yogurt. In patients where micrococcal enterocolitis has been produced through the use of antibiotics, yogurt was a valuable aid in the therapy. The authors have been using yogurt along with broad spectrum antibiotics for several years in the treatment of acute and chronic bacterial and amebic infections. They also have found yogurt to play an important role in geriatrics by helping to correct constipation or diarrhea or both, as well as intestinal intoxication due to colonic dysfunction. It is especially helpful in combating osteoporosis.

* * * *

"The Treatment of Ulcerative Colitis" by Cullinan and MacDougall in *The Practitioner* (179:1073) deals with more than treatment and constitutes a very good resumé of the present status of that disorder. It is pointed out that ulcerative colitis appears in unusual personalities with emotional upsets often preceding attacks and in order to be effective in the treatment the physician must not overlook these psychogenic factors.

Three categories are offered: (1) those with evidence of involvement of the whole colon, sometimes affecting the terminal ilium; (2) those with x-ray or other evidence of disease of part of the colon only, continuous distally to the rectum; (3) and those with negative x-rays and sigmoidoscopic proof of the disease. The problem is to decide when medical treatment is not effective and surgery should be employed for a preliminary trial with medical management, however brief, is always in order. The decision is the most difficult in the chronic relapsing group. The mortality figures reported by these authors are 15 per cent in the first group, 5.5 per cent in the second, and zero in the third.

A few of the authors' truisms are worth noting. The extent of an inflammatory lesion does not of itself decide the seriousness of the disease. Anemia and lencocytosis together increase the mortality. The acute first attack, or relapse, in a patient with total colitis who steadily deteriorates in spite of efficient medical treatment requires colectomy. Many patients with the mild form of the disease

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seek advice only because of apprehension over the significance of blood in the stools. Sympathetic understanding coupled with patience is the best form of psychotherapy and pays dividends.

* * * *

Death means different things to different people according to the degree to which a particular person has accomplished his objectives in life, so writes Sir Heneage Ogilvie *(The Practitioner,* 179:1073, 584, Nov. 1957). He comments perceptively on the sensation or certainty of impending death, famous last words, euthanasia (he is opposed to it), home care of the dying, the relief of pain in the last hours, and what to tell the dying patient. The approach of death in his patient requires the utmost of the physician in his sensitivity to the feelings of the patient, his consideration for him, and his diplomacy for thoughtfulness in dealing with the family. A well reasoned philosophy such as is presented in this essay by Mr. Ogilvie provides the soundest basis for these delicate dealings.

* * *

"Evolution is a creative process. It is unique, unprecedented, unrepeatable and irreversible." Theodosius Dobzhansky, professor of genetics at Columbia University said this in an address delivered to the 40th Semi-Annual Meeting of the Conference on Methods in Philosophy and Science *(Amer. Scientist,* 45:5, 381, Dec. 1957), and went on to say that although it leads to the emergence of beautifully contrived mechanisms of living bodies, it constantly runs the risk of ending in a failure which is extinction. He summarizes clearly and concisely the history of thought regarding the evolutionary process, explaining the fallacies of orthogenesis (predeterminism), epigenesis (the vital force), neolamarckism (the organism is shaped by its environment), and preadaptation (purposeful mutations). Sexual reproduction is the real source of individual distinctness because it multiplies by so many times the number of possible gene patterns and mutations. These novel genetic endowments are tested by natural selection for their adaptive worth. "Evolution is history . . . and the elementary events of this history are mutations. . . . When sexual reproduction and natural selection enter on the scene, the evolutionary events become adaptively directional."

* * *

In the seas extending north from Australia through the Malay Archipelago and the China Sea up to Japan and along the coasts of India exist at least six varieties of poisonous sea snakes. These represent a hazard to all swimmers in the area but particularly to those who make their living by fishing, a majority of the able-bodied men in the coastal areas. Two Malayan medical officers determined to find out what is the true occurrence of bites and deaths from these snakes at the present time (Reid and Lim, *Brit. Med. J.,* 5056, 1266, Nov. 30, 1957). After surveying a group of seventeen fishing villages in northwest Malaya, they came to the conclusion that approximately 150 persons were bitten in this area each year but that surprisingly enough, the mortality rate was only about 3 per cent. When death occurs, it is due to a general flaccid paresis. No specific antivenins are generally available.

* * *

It is interesting to learn that probably the first form of disability assistance funds were those established by the mine workers in Europe and that as early as 1534 a statute required contributions for a miners' hospital and placed funds in the care of four specially elected administrators (W. Zaleski, *Polish Med. Hist. & Science Bull.,* I, 4 and 5, 14, July-Oct., 1957). Contributions by the mine owners were made dependent on production by levying the tax in proportion to the metal extracted from the ore at the smelter. The whole medieval Silesian socialized health insurance system was so well established by 1693 that when Edmund Halley, the celebrated English astronomer, computed the first life insurance rate table, he based his figures upon the birth and death certificates of the city of Breslau, as being the most accurate available at that time.

* * *

Believing that repeated critical appraisal of the new hypotensive drugs at frequent intervals is necessary, Fremont in "Comparative Clinical Pharmacodynamic Evaluation of Newer Hypotensive Drugs" *(J. Lancet,* 78:1, Jan. 1958) offers such an appraisal for use in patients with hypertension. The only consistently abnormal factor known to influence the level of arterial blood pressure that is consistant is the abnormal increase of the peripheral vascular resistance at the arteriolar level. Only the neurogenic factor can be modified sufficiently by the use of drugs to reverse the hypertension or postpone its organic sequelae. A classification of hypotensive drugs is offered. The fol-

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lowing drugs are discussed together with the site of their effect and the chemical structure: Dibenamine, Piperoxan, DHE alkaloids, Priscoline, Regitine, hydralazine, tetraethylammonium, pentamethonium, hexamethonium, thiophanium derivative (Arfonad), Veratrum alkaloids, and rauwolfia.

No single hypotensive drug fills the bill. A selection must be made with the frequent addition of drugs counteracting their side effects. The author provides a selected list of these hypotensive drugs designed in the order of choice for the particular hypertensive state present.

* * *

Under the title "Brand Name Drugs" *The Journal of the Medical Society of New Jersey* (55:1, Jan. 1958) offers valuable editorial comment. Attention is called to the fact that more than 85 per cent of all prescriptions are prefabricated by the pharmaceutical manufacturer and, because of this, in the hands of reputable manufacturers standardization is guaranteed. It should interest the physician to know that honorable manufacturers of drugs determine the "shelf life" of a product and so advise the retailer or mark an expiration date. Cheap products are not thus protected. Examples of such products are suppositories which melt in the container before use or fail to melt in the body cavity when used. To insure a reliable product the physician is therefore justified in specifying a brand name.

* * *

The Journal of the Kansas Medical Society in the issue of January, 1958 contains a report of the Committee on Chemotherapy and Antibiotics of the American College of Chest Physicians under the title "Chemotherapy in Tuberculosis." Admission is made that no generally accepted optimum regimen in the chemotherapy of pulmonary tuberculosis has yet been found. Combinations of two or more drugs give the best results, and chemotherapy should be continued for at least one year in minimal cases and in advanced cases for a total of 18 to 24 months or at least until the stage of inactive disease is reached. Drug susceptabilities should be determined. The four most commonly used drugs are streptomycin, aminosalicylic, formerly para-aminosalicylic acid, USP XIV, and isoniazid. These drugs are discussed together with Dihydrostreptomycin, pyrazinamide and cycloserine.

Isoniazid is most effective in acute military tuberculosis, isoniazid together with streptomycin and aminosalicylic acid in tuberculosis meningitis, and the same three drugs in genitourinary tuberculosis. All three drugs are used in childhood tuberculosis. There is considerable difference of opinion as to the value of steroid therapy. The report closes with the statement that the use of steroids is justified in patients hopelessly ill with advanced tuberculosis and may be helpful in the acute forms associated with severe clinical illness.

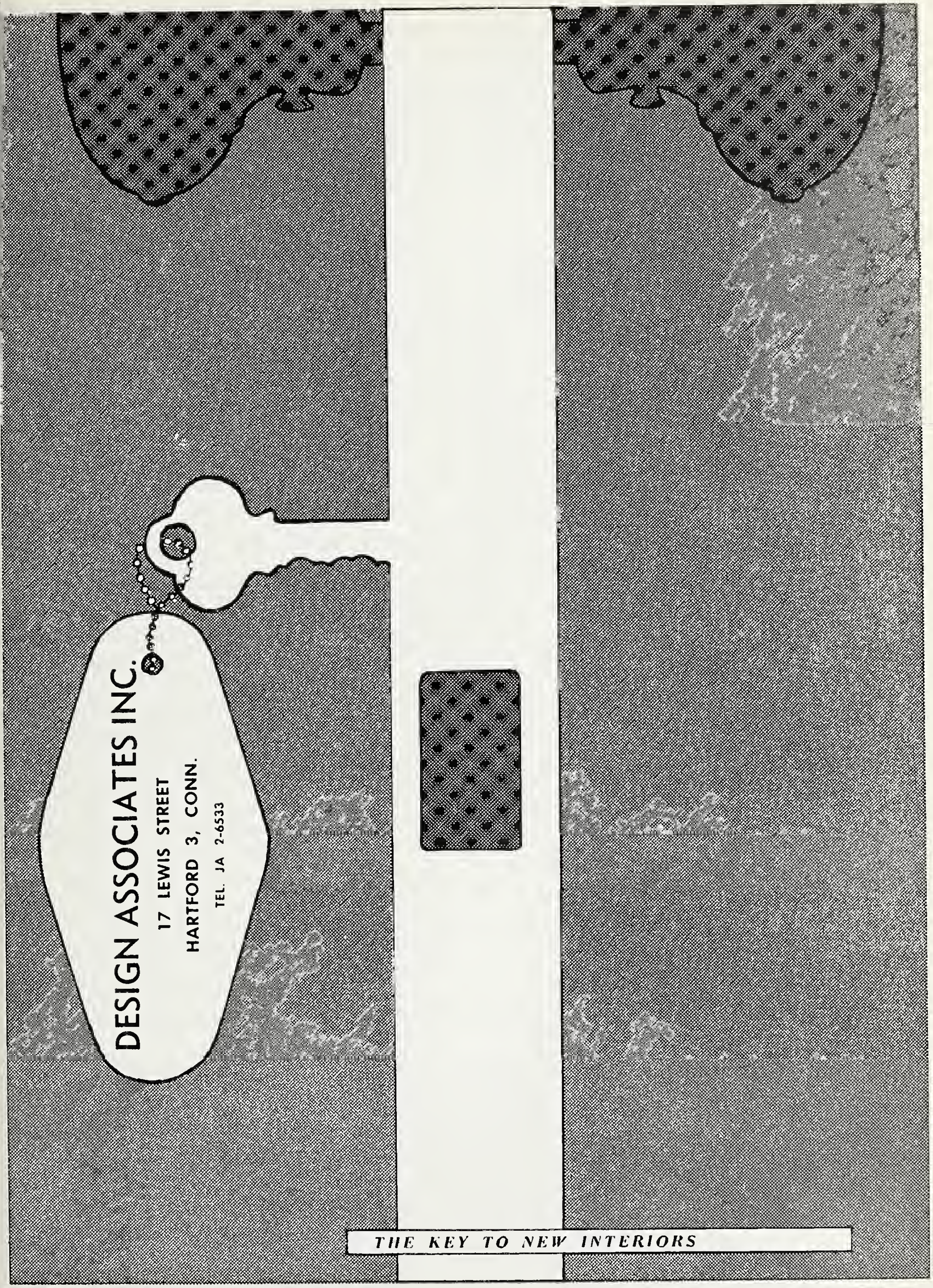
* * *

Yonteff reports the results of the use of perphenazine (Trilafon) in 89 patients with dermatoses (*J. Med. Soc. New Jersey,* 55:1, Jan. 1958). He found that this drug relieved tension and anxiety in all of the group and that in 33 of them emotional improvement was accompanied by a definite diminution of physical symptoms. Several side effects were noted but none of the severe nature that have been found to accompany the administration of chlorpromazine. Perphenazine is flexible in its adaptability to different indications but the dosage must be adjusted for each patient.

In a paper awaiting publication another author reports on the use of this same drug in 126 patients with dermatoses. This latter author reports about the same percentage improvement in the skin lesions. The concomitant use of prednisone resulted in similar findings.

* * *

To all our readers interested in the burning issue centering around the therapeutic use of x-ray for diagnostic purposes good reading will be found in the *Maryland State Medical Journal,* 6:12, Dec. 1957 where Nicholas Eastman's editorial comment taken from the *Obstetrical & Gynecological Survey* is reprinted under the title "The Responsibilities of the Medical Profession in the Use of X-Rays and Other Ionizing Radiation." The upshot of the whole matter is that x-rays, even in small doses, are known to produce mutations in the gonadal germ cells resulting in congenital malformations in future generations and for this reason every effort should be made to curtail x-ray pelvimetry and placentography to the lowest limit compatible with the safe management of labor and delivery. In refuting the stand taken by the geneticists Eastman states that there is no proof whatsoever that the harmful genetic effects produced in experimental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plants and animals apply to the human. The experience in Hiroshima affords no evidence to confirm the harmful effects of irradiation on subsequent generations but this is not surprising since it may take many generations to produce the total effect. His final argument is that the families of radiologists reveal no conclusive evidence of harmful genetic sequelae from excessive radiation which these specialists often receive.

So what are we to do? We shall probably, at least for the present, continue to use x-ray pelvimetry, not routinely, but in certain indicated instances, as for instance, where pelvic contraction is suspected. Those who continue to belittle the aid obtained from pelvimetric x-ray of course will have no decision to make. Placentography requires a much smaller dosage and gives valuable assistance to the obstetrician in hemorrhagic complications. X-ray therapy of the ovaries in sterility will probably go by the board and salpingograms and pyelograms because of high dosage may be reduced appreciably. The public is being bombarded by articles in lay publications decrying the use of x-rays. We need to be discriminating in our judgement of this modality.

* * *

Inasmuch as Leland McKittrick of Boston has had a wide experience in intestinal surgery, many will be interested in his paper, "Problems in Diagnosis and Principles of Treatment of Cancer of the Large Bowel" *(Wisconsin Med. J.,* 56:12, Dec. 1957). Because of the many patients who have had a correct diagnosis of cancer of the bowel made only after much delay, the factors influencing this delay were studied and found to be primarily three: (1) failure to take a careful history and to perform a thorough examination; (2) failure to properly interpret the findings; and (3) undue reliance on the accuracy of the roentgenological examination of the large bowel.

McKittrick based his thesis on the fact that 31 out of 100 patients who were operated upon for cancer of the large bowel came too late to be given a reasonable chance of cure. He also outlines the total operative management of these patients, including preoperative preparation, type of operation, and postoperative management.

"Treatment of Mumps Orchitis with ACTH and Cortisone" by Smith and Bishir *(New England J. Med.,* 258:3, Jan. 16, 1958) covers a study of 95 patients with mumps orchitis admitted to a single hospital over a period of one year. A control group was followed at the same time to whom only symptomatic treatment was given. The authors make the didactic statement that cortisone is an analgesic for the pain of mumps orchitis. Because cortisone produces no effect in less than four days, mild cases with temperatures of less than 103° by rectum or localized swelling less than twice normal size should not receive the steroid. These patients usually become afebrile in four days or less. Bilateral orchitis is almost always severe and should be given steroid therapy. The duration of swelling and fever and of hospitalization was not affected by cortisone.

* * *

Industrial Medicine and Surgery (27:1, Jan. 1958) contains a brief statement by Kneeland and Newquist entitled "The Common Cold—What Is Being Done About It?" This is virtually a report of the work being done by the Common Cold Foundation, a nonprofit service organization now receiving funds from about 150 companies. Research projects are now being supported at four universities, primarily to isolate viral agents causing colds. The first group to be isolated are the adenoviruses, of which 19 different types have been identified. Eleven appear to have some relation to human diseases and vaccines are being tested for five of these which have been associated with well defined clinical illnesses. A vaccine for the "J H" virus has been announced which should prove efficacious in a part of the common variety of colds. The adenovirus vaccine has been found to be highly effective in preventing acute respiratory illness in military population. General use of the adenovirus vaccine in adult civilian population is not justified since respiratory disease produced by this virus is a benign and spontaneously regressive illness of relatively infrequent occurrence in this group. Also, adenovirus vaccine is not a common cold vaccine. The common cold is probably due to viruses and progress is being made in its study by these new methods.

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May 26-June 4, 1958

Address Committee on General Arrangements for WFUNA-WHO Seminar on World Health, 2808 West River Road, Minneapolis 6, Minnesota.

Third World Congress on Fertility and Sterility
Amsterdam, The Netherlands
June 6-13, 1958

Symposium on "Medical Problems of Modern Warfare and Civil Defense"
Sponsored by 12th Naval District
U.S. Naval Radiological Defense Laboratory
San Francisco
June 19 & 20, 1958

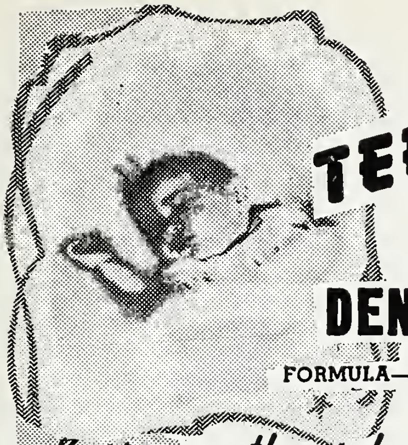
Sixth Annual National Medical Civil Defense Conference
Sheraton-Palace Hotel, San Francisco
June 21, 1958

GOLF TOURNAMENT

The American Medical Golfing Association is holding its annual golf tournament in conjunction with the A.M.A. Convention June 23, 1958 at the beautiful Olympic Lakeside Golf and Country Club, San Francisco, California. This will be a whole day of rest and relaxation with golf, luncheon, banquet, and a prize for everyone. We have left no stone unturned to assure you the very best. Tee off time 8 A.M. to 2 P.M. We cordially invite all golfing doctors to attend. Handicaps scratch to 30 in flights.

For information, contact James J. Leary, M.D. Secretary, 450 Sutter Street, San Francisco, California.

International Fertility Association
North American Conference on Infertility
Windsor Hotel, Montreal, Canada
June 20-22, 1958



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AMERICAN PSYCHIATRIC ASSOCIATION FELLOWSHIPS

The American Psychiatric Association has announced a $100,000 grant from the Smith, Kline & French Foundation to continue the Foundation's Fellowships in Psychiatry through 1960.

Seven main types of Smith Kline & French Foundation Fellowships are available: "A"—Support for advanced training of full-time staff psychiatrists of public mental hospitals and schools for the retarded. "B"—Awards to hospitals for visiting lectureships and for teaching fellowships. "C"—Support to medical schools, teaching centers, etc., for extension training programs. "D"—Student fellowships to encourage talented medical students to broaden their experience in psychiatric approaches and practice. "E"—Medical fellowships to encourage broadened skill in the handling of psychiatric problems by physicians other than psychiatrists. "F"—Foreign scholar lectureships to bring outstanding men to the United States. "G"—Residency training fellowships under unusual circumstances.

Applications for consideration in May and October must be received by the Fellowship Committee by April 1 and September 15. Information and application forms may be obtained from the Committee, Box 7929, Philadelphia.

COURSE IN POSTGRADUATE GASTROENTEROLOGY

The American College of Gastroenterology announces that its Annual Course in Postgraduate Gastroenterology will be given at the Jung Hotel in New Orleans, La. on 23, 24, 25 October 1958.

The Course will again, as usual, be under the direction and cochairmanship of Dr. Owen H. Wangensteen, Professor of Surgery of the University of Minnesota Medical School, who will serve as surgical co-ordinator and Dr. I. Snapper, Director of Medical Education, Beth-El Hospital, Brooklyn, N. Y., who will serve as medical co-ordinator. Drs. Wangensteen and Snapper will be assisted by a distinguished faculty selected from the medical schools in and around New Orleans.

The subject matter to be covered in the Course, from a medical as well as surgical viewpoint, will be essentially the advances in diagnosis and treatment of gastrointestinal diseases and a comprehensive discussion of diseases of the mouth, esophagus, stomach, pancreas, spleen, liver and gallbladder, colon and rectum.

For further information and enrollment write to the American College of Gastroenterology, 33 West 60th Street, New York 23, N. Y.

New England Postgraduate Assembly
Hotel Statler, Boston, Massachusetts
November 4-6, 1958

POSTGRADUATE COURSES FOR SPECIALISTS

The Institute of Ophthalmology of the Americas of the New York Eye and Ear Infirmary announces a series of Postgraduate Courses for Specialists to be given from November 3, 1958 to January 9, 1959.

Courses will be given in the following subjects: Anomalies of Extraocular Muscles, including Ptosis; Aniseikonia; Biomicroscopy; Cataracts; Clinical Bacteriology; Complications of Ophthalmic Surgery; Electrophysiology of the Eye; Glaucoma; Gonioscopy and Tonography; Keratectomy and Keratoplasty; Lacrimal Sac Surgery; Medical Ophthalmoscopy; Near Ultra-Violet Biomicroscopy; Ocular Allergy; Ocular Biochemistry; Ocular Microbiology; Ocular Neuro-Ophthalmology; Ocular Photography; Ocular Radiology; Ocular Trauma; Ophthalmoscopy; Pathology; Perimetry; Plastic Eye Surgery; Pleoptics and Macular Function Testing; Psychosomatic Factors in Ophthalmology; Radio-Isotopes in Ophthalmology; Refraction; and Retinal Detachment.

Further information regarding the Courses may be obtained by writing to Mrs. Tamar Weber, Registrar, Institute of Ophthalmology of the Americas of the New York Eye and Ear Infirmary, 218 Second Avenue, New York 3, New York.

LETTERS TO THE EDITOR

Dr. Wolcott's House to Be Preserved

The readers of this *Journal* and the friends of old houses in Connecticut will be interested to learn that the Alexander Wolcott House, a medical landmark in Windsor, Connecticut, is to be saved. At the time it appeared in this *Journal* in November, 1956 it was for sale and seemed doomed to destruction for commercial purposes. I am informed by Mr. Roger Wolcott Davis of Windsor that Mr. Albro Case has purchased the house and it will be moved to a new location near another historic home re-erected by Mr. Case. Dr. Alexander Wolcott (of the Governors Wolcott family) was an important figure in our medical history as a practitioner, an army surgeon and as a medical teacher. The doctors of the area might perform a public service by seeing that the house is suitably memorialized as a medical landmark.

HERBERT THOMS

Connecticut State Medical Journal

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AROUND THE STATE

The Ashley W. Oughterson Memorial Fund

A solicitation is being sent to Scotty's many friends to invite contributions to establish a trust fund in his memory. The annual income from the fund will be used to furnish ordinary medical equipment and supplies for a clinic serving about 4,000 medically indigent people of the Huasca Valley, in Mexico, where Scotty and his wife spent many of their happiest times at the Club Panamericano de Doctores.

The modern Clinic Building was built and presented to the Mayor of Huasca in 1956 by the Club. The Clinic's staff consists of Mexican senior medical students who are assigned by their government to tours of duty of about six months, and it is under the direction of its own Board, recruited from Club members. The trust fund's provision of badly needed basic equipment and supplies should make the Clinic an effective operational unit. In recent years the establishment of the Clinic was one of Scotty's most cherished projects, and the furtherance of the Clinic's purpose through this fund appears as a most fitting tribute and memorial to him. An appropriate plaque will be placed on the wall of the Clinic.

> This Fund, established by friends of the late Dr. A. W. Oughterson, is a trust dedicated as a continuing memorial to his work in the field of Medical Education and to his assistance in the foundation of "La Clinica de San Miguel Regla" in Mexico, to which clinic the income from the Fund shall be devoted in such manner as the Co-chairmen of the Fund or their successors shall from time to time designate.

Contribution checks may be made out to—The Oughterson Memorial Fund, and sent to the undersigned Co-chairmen.

DR. ARTHUR J. GEIGER
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President of the Clinic
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Cleveland 14, Ohio

Connecticut Regional Blood Program

	MARCH 1958	7/1/57 THRU 3/31/58
DONORS		
Donors accepted	8,664	66,342
Donors rejected	803	6,015
Donors registered	9,467	72,357
BLOOD ISSUED TO HOSPITALS		
To Connecticut Hospitals from Center	6,815	56,211
Blood collected by hospitals	464	5,946
To fractionation stock pile	315	1,827
To out of state hospitals	292	902
To N.I.H.	3	15
	7,889	64,901
PROCESSING AT CENTER		
Processed into fresh frozen plasma	87	689
Processed into packed cells	0	15
Processed into liquid plasma	498	5,126
	585	5,830
Discarded—unfit and broken	43	305
Grand Total—distribution of blood	8,517	71,036
Blood returned to Center for processing into plasma and fractions	430	4,998
BLOOD DERIVATIVES ISSUED TO HOSPITAL		
Irradiated plasma (300 cc)	5	305
Fresh frozen plasma (125 cc)	137	1,336
Serum albumin	83	835
Immune serum globulin (2 cc)	250	522
Packed red cells	0	15
Fibrinogen	0	0

New Commissioner of Mental Health

Governor Ribicoff has appointed Dr. Wilfred Bloomberg of Atlanta, Georgia as State Mental Health Commissioner. Dr. Bloomberg will take office on September 1, filling the vacancy left by the resignation of Dr. John J. Basko in 1957. For the past year and one half Dr. Bloomberg has been head of the mental health unit of the Southern

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JOSEPH BILLINGS, 100 Elm Street
MRS. A. W. HACKETT, 150 Temple Street
EDW. N. SILVER, 519 Campbell Ave. (West Haven)

TORRINGTON
JOSEPH E. NEWBURY, 41 Water Street

Regional Educational Board, a joint educationa agency maintained by 16 southern states. Prio to that he was chief of the psychiatry and neurolog services at the Boston VA Hospital.

Dr. Bloomberg is a graduate of Harvard College and of Harvard Medical School. He served a a psychiatric consultant in the U. S. Army during World War II.

Fairfield County

Construction of the new unit of the Park City Hospital in Bridgeport has been completed at a cost of over one million dollars. Financing of this new building has been aided by a federal grant of $200,000 through the Hill-Burton program. Dedication of the new building took place on April 16. The ultimate goal of the development program for Park City Hospital is a complete 162 bed facility.

Middlesex County

Floyd Roos was recently certified as a specialist by the American Board of Urology.

Joseph Beauchemin retired as pathologist at the Connecticut State Hospital on April 1. He will be at the University of Southern California, on a research fellowship.

John Kelly spent a week at Boston City Hospital taking a course in pulmonary physiology.

Henry Sherwood attended an international symposium on hypersensitivity at the Henry Ford Hospital, the last week in March.

Hartford County

Alfred L. Burgdorf, city health director of Hartford, was honored at a dinner on March 25 with the presentation of the State's highest cancer award. The occasion was the opening of the 1958 Cancer Campaign of the Connecticut Division, American Cancer Society. Dr. Burgdorf was president of the Connecticut Cancer Division from 1951 to 1953 and also was a member of the executive committee from 1945 to 1954. He was the first chairman of the Division's Medical Advisory Committee from which he retired in 1957. Since 1945 he has been a trustee of the Connecticut Division, American Cancer Society.

Morris J. Seide of Hartford, clinical instructor in internal medicine at Yale University School of Medicine, has published a report of nine cases of porphyria diagnosed in the Greater Hartford area.

This report appeared in the March 27, 1958 issue of *The New England Journal of Medicine.*

Ralph T. Ogden, president of the American Radium Society, attended the 40th Annual Meeting on March 27, 28 and 29 at the Hollywood Beach Hotel, Hollywood, Florida, along with N. William Wawro and Cyril Sanger. Dr. Ogden, president of the Medical and Surgical Staff at H. H., opened the meeting with an address to the group. Dr. Wawro spoke on "Twenty-one Years' (1931-1952) Experience in the Treatment of Cancer of the Tongue at the Hartford Hospital" and Dr. Sanger on, "High Pressure Oxygen and Radio-Therapy."

New Haven County

Herbert D. Lewis, M.D. of Grace-New Haven Community Hospital and a member of the Connecticut Commission for the Improvement of Care of the Patient addressed the New England Hospital Assembly recently convened in Boston on "Employee Health Program."

Robert O. Loosley, formerly managing director of the United Community Services of Detroit, Michigan, has been appointed the new director of program development of the Yale-New Haven Medical Center. This Center has been formed by the Yale School of Medicine and the Yale School of Nursing affiliating with the Grace-New Haven Community Hospital. Mr. Loosley's appointment is effective immediately. He will be responsible for programs designed to meet current operating requirements and long range capital needs.

Orvan W. Hess of New Haven is the author of "Factors Influencing Perinatal Mortality in Cesarean Section," published in *American Journal of Obstetrics and Gynecology,* February, 1958.

Francisco Duran-Reynals, one of the nation's leading cancer researchers, died of cancer at the Grace-New Haven Community Hospital on March 27 at the age of 58 years. At the time of his death Dr. Reynals was studying the viral origins of certain types of cancer, he being one of the first to advance the theory that cancer may be caused by viruses.

Windham County

"Connective Tissue, Hormones and Aging" by Sidney Vernon of Willimantic was published in the September 1957 issue of the *Journal of the American Geriatrics Society.*

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Perinatal Mortality

(Continued from Page 393)

comment on the above article as it appears. His comments are as follows:

I am in complete agreement with all of the foregoing statements by the Committee. These are so complete that there is not much more to add.

The fact that the mother received a transfusion in 1945 is pertinent to the problem and deserves comment. If the donor blood was Rh (D) positive, it could have been a major factor in her sensitization. There might well have been no evident transfusion reaction at the time. Its time relationship to the first two unaffected babies and the third infant who succumbed at birth to severe hemolytic disease of the newborn is important and deserves clarification.

The blood types of the first two infants would have been useful information in dealing with the third. Proven severe erythroblastosis in the third child made severe disease in the fourth likely and should have alerted the attending physician well before delivery. The same may be said for the mother's antibody studies in late pregnancy.

Additional helpful information would have included an estimate as to whether or not the father was homozygous; whether all his children would be Rh positive or only half of them. This could be estimated by knowing the subtypes of his blood grouping and by knowing the Rh types of his parents and his previous children. If he were homozygous Rh positive, the prognosis is worse than if he could sire some Rh negative (unaffected) children.

With the history given, coupled with the fact that this 5 lb. 7 oz. D positive, Coombs positive baby was jaundiced at 12 hours of age, exchange transfusion was mandatory at that point without benefit of any further laboratory work. Jaundice in the first 24 hours (or even 36 hours) of life is always abnormal and most often heralds hemolytic disease of the newborn. In the face of the known additional laboratory data (cord bilirubin of 4.1 mgs. and an icterus index of 115 at 12 hours), failure to perform an exchange transfusion on this infant at 12 hours of age represents definite breach of "accepted practice." Kernicterus, never present at birth, could almost certainly have been prevented by one or more exchange transfusions to keep the indirect-reacting bilirubin below 20 mgs. per cent and this infant's life might well have been a normal one.

NEW BOOKS IN REVIEW

DIABETES AS A WAY OF LIFE. By T. S. Danowski. New York: Coward-McCann, Inc. 1957. 175 pages $3.50.

Reviewed by B. J. Buck

The thesis of this 175 page book is the incorporation by the diabetic of his metabolic disorder into his life as a part of him. In developing this thesis Dr. Danowski presents a clear discussion of diabetic symptomatology, care, and the result of this care in the various times of life, especially in childhood. In the early chapters he quotes extensively from the carefully worked out booklet on diabetes distributed by the teaching clinics in which he is active in Pittsburgh. This, with the explanation of the American Diabetes Association diet exchange lists, gives the practical application needed by the patient.

The following chapters give a careful explanation of insulin and its practical use and control, and insulin substitutes. Also discussed is the effect of emotions and habits of living on diabetes; the occurrence of coma from ketosis and insulin shock; childhood diabetes; pregnancy; and the handling of special situations so that diabetes fits into a way of life. The need of medical follow-up is adequately emphasized and a chapter is included on "glossary for diabetics" to make medical vocabulary more understandable.

This scientific yet simple presentation of the facts of diabetic living is a valuable addition in the field of teaching the diabetic to live with himself.

HEALTHFUL SCHOOL LIVING. A Report of the Joint Committee on Health Problems in Education of the National Education Association and the American Medical Association. Edited by *Charles C. Wilson,* M.D., of New Haven. 1957. 309 pages $5.00.

Reviewed by Martha L. Clifford

This title is well chosen because a setting to be most conducive to education (learning) must be free of health problems. The book describes the best ways known for eliminating health problems which would interfere with the learning process. Moreover, it states ways in which health of students and groups of students can be promoted.

This book combines the values of an administrative guide on health services and healthful environment in schools, with certain values of a teaching guide. It should be one of the most useful references yet available to school administrators and teachers as well as to physicians, nurses, and others serving

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the schools. It is well illustrated with photographs and includes such topics as school organization for pupil health; personalities and teaching methods; health aspects of schoolhouse construction and equipment; special problems of rural schools; utilizing the environment for health education; and all factors involved in the general area of a healthful environment. The last chapter on Administering a School to Assure Healthful School Living includes eight points which ". . . summarize the important factors to be considered and describe good practice:

> "1. Joint planning for school and community programs between boards of education and health should be a constant feature of any system.
>
> "2. School personnel should welcome the advice and consultation of health or medical personnel at each stage of program development.
>
> "3. Medical personnel should learn to work with school people, to understand their problems, and cooperate with rather than dominate the program.
>
> "4. Health departments should be constantly ready to improve the inservice preparation of teachers.
>
> "5. School and community health councils should invariably carry adequate representation from both health and education administrative offices.
>
> "6. In any given school building, the administrative authority of the principal over all activities, including health services, must remain.
>
> "7. Medical personnel (physicians, nurses) who have some preparation in the field of professional education have an advantage in working in an educational setting.
>
> "8. Boards of education, charged as they are with the responsibility for the education of the children of the community and recognizing the basic educational character of school health education, can be encouraged to work cooperatively with boards of health on mutual problems without relinquishing administrative jurisdiction over any part of the educational program."

Dr. Charles C. Wilson, working with other outstanding leaders in school health, has edited this book which promises to be as gratefully accepted as his previous editorial successes. Credit should also go to the other seven members of the editorial committee and the 12 members of the joint committee, to 18 contributors, and to 46 consultants. The reviewer is impressed with the recognition throughout the book which is given to the practical problems involved in applying accepted education and health principles. Also impressive is the fact that recognition is given to recent changes which have been taking place in the population such as moving of families from state to state. This book is so smoothly written that an inexperienced reader might say "This is just common sense—very simple," but the reader who has been participating in school health programs will recognize the many steps of trial and error which have taken place and are still taking place in the conduct of a school health program. The experienced reader will appreciate the many words of sound and helpful advice.

---

[4] Oberteuffer, Delbert. School Health Education. New York: Harper & Brothers, 1954. p. 365-66.

The
CONNECTICUT STATE MEDICAL JOURNAL

OL. XXII JUNE, 1958 No. 6

ST. RAPHAEL'S GOLDEN JUBILEE

In October, 1957 the Hospital of St. Raphael in New Haven celebrated its Golden Jubilee. The occasion was opened by a formal banquet on the evening of the 23rd at which time Archbishop O'Brien and Dr. Francis J. Braceland, both of Hartford, delivered addresses. Many honored guests were present from the clergy as well as the Governor of Connecticut and the Mayor of New Haven.

The following day a solemn high mass of thanksgiving was held in the chapel of the hospital. The final event of the Jubilee was a scientific session on the third day at which time papers by outstanding medical leaders were presented. This program also included a clinical pathological conference participated in by the pathologist at St. Raphael, a pathologist from Hartford, and two visiting medical school professors. This issue of the *Journal* is pleased to present to its readers the various features of that scientific program. In addition, one of our members, Charles T. Flynn, chief of otolaryngology at the Hospital of St. Raphael, has furnished a short history of the hospital. This points out the accomplishments of fifty years of service to the people of the New Haven community and emphasizes the work of the late Dr. William F. Verdi in developing the "Greater St. Raphael's" as it is known today.

In the twenty-two years of its existence this is the first time the *Journal* has devoted any one issue to a particular hospital. The assistance of certain members of the staff of the Hospital of St. Raphael in preparing these papers for publication has made the editor's task a pleasant one. To the administrators and members of the medical and surgical staff of St. Raphael the *Journal* offers its hearty congratulations for the accomplishments of fifty years and its best wishes for even greater accomplishments in the coming half century.

S.B.W.

THE HOSPITAL OF SAINT RAPHAEL

Charles T. Flynn, m.d., *New Hav*

Helping folks to get well has been the job of St. Raphael's since the day it was founded in 1907. At that time a group of four Sisters of Charity of St. Elizabeth from Convent, New Jersey came to manage the small twelve bed hospital in a residence on Chapel Street near Sherman Avenue at the request of a group of local Catholic physicians.

These physicians and some of their colleagues, not of the Catholic faith, founded on May 3, 1906 the "Catholic Hospital Association." Included in the group were: Dr. William Verdi, Dr. John Luby, Dr. Stephen Maher, Dr. Matthew O'Connor, Dr. James Flynn, Dr. Leonard Bacon, Dr. Frank Whittemore, Dr. John Sullivan, Dr. Jeremiah Cohane, Dr. Norton Hotchkiss, Dr. William Sheehan, Dr. Francis Reilly, Dr. Edward McCabe, and Dr. William Butler.

The organization was aimed to improve inadequate hospital facilities in the community and to establish what they termed "a hospital to receive and care for all patients without regard to race, creed, or color; to extend charity to the sick, poor, and needy, as required, and to open to all members of the medical profession an institution in which they could administer to their own patients."

The original hospital housed in the old Barnes residence was obviously only a beginning for this group and the Sisters who came to help them. Sister Mary Irmina McDonough, first superintendent of the hospital, with Sister Mary Eustelle Kivlehan, Sister Rose Ulrica Farley and Sister Alice Veronica Flynn lived in the Convent of St. John's Parochial School on South Street and then transferred to quarters in the attic of the Barnes residence when the hospital was ready to function under their supervision. Renovation progressed rapidly; bedrooms fast became wards for patients; the front room was converted to a chapel and so it went, as kitchen and other parts of the house were left to perform their regular duties.

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But this small building was not what the phy cians had envisioned. They were anxious for larger hospital, one with operating rooms, a ph macy, school of nursing, laboratories and all t other departments that were part of the mode hospital in that day.

They had already appealed to the Bishop of t Diocese of Hartford, Most Reverend Michael Tie ney, for approval of their plan and with him their spiritual advisor embarked on the first pa of an expansion program that brought a real h pital into being.

Ground was broken in April, 1907; blessing a the formal cornerstone laying came on July 28 the same year. The final opening with the new sta taking possession took place on January 6, 190 Paying for the hospital demanded all ways of ma ing money, such as loans, special gifts, tag day card parties and dances. The new staff include Dr. William F. Verdi as surgeon-in-chief, with a attending staff in surgery including Dr. Norto Hotchkiss, Dr. William Sheehan, Dr. Leonard B con, and Dr. E. Reed Whittemore.

On the attending medical staff were Dr. Joh Luby, Dr. John Sullivan, Dr. James Flynn, and D Henry Fleischner who was in charge of obstetric Dr. Edward McCabe and Dr. Eugene Blake wer appointed attending surgeons in charge of the ey ear, nose and throat departments, with Dr. Dwigh Lewis as pathologist.

Hardly were the doors of the new hospita opened to the public when a disastrous fire brok out in Grace Hospital adjoining St. Raphael's. Pa tients were carried to the new institution and care for so that danger of exposure or delay in attentio was eliminated.

The Hospital of St. Raphael
Then—

—And Now

This emergency gave St. Raphael's its baptism in a real work of charity and afforded its staff an opportunity to cooperate with the physicians of Grace Hospital in every way. The new institution won immediate sympathy from the people at large, meriting a place in public approval which it has never forfeited.

The active and dynamic direction of Sister Irmina as hospital administrator continued until 1909 when Sister Rose Vincent took over for one year. During Sister Irmina's regime the hospital increased from 12 beds to 150 beds; a School of Nursing supervised by Miss Josephine Coffey was organized; and a Ladies Auxiliary was begun in 1908.

Sister Irmina and the medical staff were quick to recognize the need for an even larger hospital and so during the years when Sister Immaculata acted as administrator (1910-1932) the hospital made great strides. In 1918 a campaign was launched for funds to finance an entire new wing on the other side of the original hospital structure to be known as St. Rita's. In the meantime, in 1910 a fully equipped pharmacy had been established. In 1911 an up-to-date laboratory was equipped and in 1912 came the installation of the hospital's first x-ray machine.

The response to the appeal for aid was so generous throughout the city and its suburbs that completion of the new building was assured. Bed capacity was increased to more than 200 and marked a phenomenal growth from the first days of the hospital's history. The new wing was constructed in 1919 with a chapel on the first floor and many private rooms on the floors above. It was during this year that a department of urology was also established under Dr. Israel Kleiner.

The year 1924 was important in the hospital's history. Funds were presented by Truman E. Lewis of Waterbury to provide for the construction of the Selina M. Lewis Nurses' Home on George Street at the rear of the main hospital building. It was during this year also that the first full time anesthetist was appointed on the hospital staff.

In 1926 a bronchoscopic department was formed by the author and St. Vincent's Pavilion for Children was opened. This was followed in 1931 by the construction of a modern, fully equipped laundry located in a separate building on the hospital grounds. In 1932 the hospital had its first full time pathologist, Dr. Robert Nesbit, who has developed clinical laboratories and the pathological department up to the present time. In 1933 a dental clinic under Dr. William Flynn and a maternity clinic under Dr. Theodore Behan were organized;

and in 1936 the dining room of Arnold College was renovated into a modern pediatric section, subsidized largely by Dr. Raynham Townsend.

From 1932 to 1937 Sister Catherine Regina acted as administrator with Sister Elenita succeeding her from 1937 to 1939. Through their able leadership the aforementioned advances were made but most important was the purchase of land and buildings of Arnold College to provide room for the building of "Greater St. Raphael's" as we know it today.

Under the wise and prayerful guidance of Sister Rose Alexis, director from 1939-1956, plans were made for enlarging the hospital. Dr. Verdi, along with John J. McKeon, Matthew Reynolds and others, with the sanction of Bishop Morris F. McAuliffe, began a drive for funds that was most successful. The Arnold College property was demolished and the cornerstone was laid by Bishop McAuliffe in 1941.

In 1942 the first patient was admitted and Dr. Verdi performed the first operation in the new surgical suite in the fall of that year. All patients were transferred to the new building, with the old hospital converted to other uses, such as dining rooms for nurses and doctors, pathology and x-ray laboratories, pharmacy, chaplain's dining room, physiotherapy department, pathology, electrocardiography, metabolism, postmortem room and qua ters for animal research.

By 1946 it was necessary to add a new floor to th private pavilion. The progress in the educatio program for the house staff was so great that soo the hospital was accredited for residency trainin in most departments.

In February of this year a $350,000 Radiatio Therapy Center was opened through gifts from th New Haven Foundation, Ford Foundation and pr vate benefits. This center represents another in portant milestone in the relentless battle agains cancer and allied diseases.

And now in October of 1957 we see St. Raphael' as it continues to grow and progress under the d rection of its present administrator, Sister Louis Anthony, so that hospital facilities may be increase and improved to keep pace with the times.

Nineteen hundred and fifty-seven marks th Golden Jubilee of the Hospital of St. Raphael. To day our hospital has capacity for 370 beds and 6 bassinets, and a staff of more than 800 dedicate to the care of the sick, teaching, research and pro fessional medicine. St. Raphael's through the grac of God and the help of its founders and many bene factors has come a long way since its small building 12 bed, and 16-in-staff days.

CYSTIC FIBROSIS OF THE PANCREAS*

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It is indeed a pleasure to be on the Scientific Program to commemorate the Fifthieth Anniversary of the Hospital of St. Raphael. It is also a privilege to be speaking about cystic fibrosis in Connecticut which was the first State in the Union to recognize the importance and the frequency of this disease and to appropriate public funds for the care of patients and for the study of this disorder.

Cystic fibrosis of the pancreas is a generalized hereditary disease of children and adolescents due to dysfunction of exocrine glands. In the fully manifested cases there are chronic pulmonary disease, pancreatic deficiency, abnormally high sweat electrolytes and at times, cirrhosis of the liver. However, a gradation in or absence of involvement of organs and glandular systems affected is characteristic of this disorder and leads to variations in the clinical picture.

HISTORY

Cystic fibrosis is a relatively recently recognized disease. In 1936 Fanconi in Switzerland described two cases of cystic fibrosis, recognized this condition as a separate entity and gave the disease its name based on the pathologic lesions in the pancreas. This paper, however, attracted little attention and it was not until 1938 with Andersen's description of 49 cases gathered from the world literature and from the autopsy files of the Babies Hospital in New York and the report of two smaller series of patients by Blackfan and May in Boston and by Harper in Australia that interest in this condition was aroused.

Prior to 1938 the diagnosis of cystic fibrosis had never been made on clinical grounds. Most patients died in infancy of bronchopneumonia; in others

SUMMARY

Cystic fibrosis of the pancreas is a generalized hereditary disease of children and adolescents due to dysfunction of exocrine glands. In the fully manifested cases there are chronic pulmonary disease, pancreatic deficiency, abnormally high sweat electrolytes and at times, cirrhosis of the liver. However, gradation in or absence of involvement of organs and glandular systems affected is characteristic of this disorder and leads to variations in the clinical picture.

At the present time and in this country cystic fibrosis is the most common chronic lung disease of children; it is also one of the most frequent chronic systemic disorders in the pediatric age group. It is being recognized with increasing frequency in adolescents and young adults.

Pathology and symptoms resulting from the involvement of various organs are discussed.

The clinical picture should lead to suspicion of the correct diagnosis which is then confirmed by laboratory tests. The simplest and most reliable single diagnostic procedure is the "sweat test".

The involvement of the respiratory tract usually dominates the clinical picture and determines the fate of the patient. The effects of pancreatic deficiency are less important to the patient's ultimate outlook. Meconium ileus, heat prostration and portal hypertension due to cirrhosis of the liver are additional hazards.

Active treatment of the pulmonary lesion with antibiotic agents deserves the major emphasis. Some dietary measures may be required if pancreatic deficiency is present. Additional salt should be given during the summer months.

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*The investigations were supported by the National Cystic Fibrosis Research Foundation, by the Nutrition Foundation and the Corning Fund for Medical Research.

the symptoms of malabsorption predominated but the basic disease was unrecognized. In recent years with increased awareness of the disorder and of its clinical variations and with the advent of effective antibiotic agents an increasing number of cases have been seen in pediatric clinics in this country and abroad.

INCIDENCE

Cystic fibrosis is not a rare disease. At Babies Hospital in New York we have seen to date about 500 cases since 1939, the great majority in the last few years. Other large pediatric centers in this and other countries have observed several hundred cases each. The incidence of cystic fibrosis in the general population is estimated at 1 per 1000 live births.

Cystic fibrosis has striking racial predilections. It occurs equally in all groups of the Caucasian race. It is rare in Negroes and has never been reported in Mongolians. Only four of our 500 patients at Babies Hospital are Negroes.

HEREDITY

Cystic fibrosis is hereditary and thought by most to be transmitted as a recessive trait. The overall expected incidence in children of affected families would therefore be 1 in 4. However in some families the incidence is much higher. The frequency of the single gene in the general population has been estimated to be 1 in 50.

There is increasing evidence that homozygotes have the fully developed picture of cystic fibrosis, whereas heterozygotes (including adult relatives of known patients) have either no expression or only partial manifestation of this disorder. Twenty per cent of relatives (children and adults) of known patients have abnormally high sweat electrolytes as the only abnormal findings.

PATHOLOGY

Nonmucous producing exocrine glands, such as the sweat and parotid, show no visible pathologic lesions, the abnormalities in their secretion give rise only to physiopathologic changes.

The basic pathologic lesion which may be found scattered in mucus secreting glands throughout the body is due to an accumulation of abnormal products leading to dilatation of the glands themselves. The blocking of pancreatic ducts by inspissated secretions leads to dilatation and a cystic appearance of these structures, degeneration of the exocrine parenchyma of the pancreas and its replac ment by fibrous tissue and ultimately by fat. Th islands of Langerhans are normal. Obstruction o bile ductules by abnormal secretions leads to foc of hepatic cirrhosis and at times to a more diffus multilobular biliary cirrhosis.

PULMONARY INVOLVEMENT

The dominant clinical feature in cystic fibrosi is the pulmonary involvement, which virtually al patients have at some time in the course of thei disease. The time of onset, the degree of severit and the duration of the chronic pulmonary diseas is variable, but it frequently is severe and pro gressive and has accounted for over 90 per cent o the 200 deaths in our series. The paranasal sinuse are also consistently involved.

Despite these differences the sequence of event is strikingly similar. Usually following an acut respiratory infection there is, presumably, difficult in removing bronchial mucus leading to widesprea and at times severe bronchial obstruction. Secondary bilateral bronchopneumonia follows at time rapidly. With prompt antibiotic therapy this i usually brought under control.

If there is permanent damage to the bronchia wall there is a severe, progressive bronchopneumonia which antibiotic agents are unable to check The distressing picture of pulmonary insufficienc eventually develops and death follows in an average two or three years. However, individual variations are great and we have observed a fatal termination in a period as short as three weeks following birth and as long as after 14 years of an increasingly severe lung disease. Bronchiectasis, lobar atelectasis, lung abscesses, sudden death from asphyxia, spontaneous pneumothorax, mediastinal and subcutaneous emphysema and cor pulmonale are all possible complications. It is characteristic of the disease to present repeated attacks of bronchial obstruction on the occasion of intercurrent acute respiratory infections.

If there is no irreversible damage to the bronchi, there is mild, chronic pulmonary disease which antibiotic agents keep effectively in check when administered in prophylactic dosage. After the age of 10 years such patients improve. It is possible that as adults even in some of these there may be chronic lung difficulties.

Whether patients have severe or mild pulmonary involvement, Staphylococcus aureus hemolyticus is only or the predominant organism present in itum cultures. Indeed there is a striking associa- n between cystic fibrosis and Staphylococcus sug- ting almost a metabolic relationship between s organism and the disease.

On physical examination when chronic pulmon- disease is present, the chest is barrel shaped, npanitic on percussion. On auscultation scat- ed rales are present throughout the pulmonary as. There is clubbing of fingers and toes. On ntgenograms there is evidence of bilateral bron- opneumonia with a "honeycomb" appearance of lungs and pronounced peribronchial cuffing. more advanced cases a "snow-flake" picture can seen simulating that of advanced tuberculosis. roentgenography there are always signs of gen- lized obstructive emphysema, with a relative crocardia, depression of the diaphragmatic leaves d an increased antero-posterior diameter of the est.

NCREATIC DEFICIENCY

In 80 to 90 per cent of patients with cystic fibrosis ere is pancreatic deficiency and trypsin, amylase d lipase are absent from duodenal contents. In ost of them pancreatic achylia is present at birth. s a consequence foodstuffs are poorly digested and sorbed. The fecal fat and nitrogen content is eatly increased and there is steatorrhea and azo- rrhea. The stools are bulky, foul, greasy. Be- use so much of the food taken in by mouth is st through the stools the appetite is excessive and alnutrition despite an apparently adequate ietary intake is common. In contrast to fat, pro- in is well tolerated however, and by increasing e amount of protein ingested it is possible to ep these patients in positive nitrogen balance. iposoluble vitamins are lost in the stools and mptoms of vitamin A, K and E deficiency have een described. Rickets due to vitamin D defi- ency, however, has never been present in our xperience.

In the past, pancreatic involvement was consid- red the basic defect in this disorder and the diag- osis of cystic fibrosis was withheld unless absence f pancreatic enzymes could be demonstrated. With he advent of the "sweat test" the situation has hanged and it is now possible to demonstrate that rom 10 to 20 per cent of patients have cystic fibro- is despite the fact that pancreatic achylia is not emonstrable. In these children there are no symptoms referable to impaired digestion, but other manifestations of the disease including the pulmonary involvement are present.

Even in patients with complete pancreatic deficiency carbohydrate metabolism is not disturbed and diabetes mellitus almost never occurs. We have seen only one such patient out of 500 cases in our series.

HEPATIC CIRRHOSIS

In the majority of the patients at necropsy areas of "focal biliary cirrhosis" are found in which the biliary ductules are blocked by inspissated secretions and are surrounded by an area of fibrosis and neoproduction of bile canaliculi. With time these areas coalesce, several lobules being affected at one time and surrounded by fibrous tissue. The process becomes more extensive and with time a diffuse "multilobular biliary cirrhosis with concretions" may develop. Even in the advanced stages, areas of fairly normal looking liver parenchyma coexist with cirrhotic areas reflecting the focal origin of the process and giving an explanation of why liver function tests are frequently normal and jaundice is either absent or very slight. At this stage the liver is hard, nodular, only slightly enlarged, but still there are no symptoms. Following years of destruction and regeneration of the hepatic cells the architecture of the liver parenchyma is destroyed, portal hypertension develops and clinical symptoms appear. Hyperspenism, ascites, gastrointestinal bleeding and hepatosplenomegaly are present.

MECONIUM ILEUS

In 10 per cent of patients with cystic fibrosis there is intestinal obstruction at birth (so-called meconium ileus), due to putty-like, greyish meconium plugging the lumen of the small intestine and thought to be associated with pancreatic achylia present before birth.

Meconium ileus, when it occurs, presents an acute emergency and requires surgical intervention. Patients who survive the operation have the same outlook as those who have not had this complication.

ABNORMAL SWEAT

In 1953 our group demonstrated that the sweat of 99 per cent of patients with cystic fibrosis has a concentration of chloride and sodium two to five times above that of normal individuals and of patients (children and adults) with any other kind of disease tested so far, with the possible exception of adrenal insufficiency. Sweat potassium is similarly affected, but to a lesser degree. In contrast the rate of sweating does not seem to be different in patients with cystic fibrosis and other individuals.

It was shown by us in metabolic studies that renal and adrenal function was normal and that a variety of stimuli such as administration of desoxycorticosterone acetate, salt restriction, hot weather and others did not significantly affect the concentration of salt in sweat of fibrocystic patients. It was concluded, therefore, that the defect in cystic fibrosis was in the sweat glands themselves.

In patients with cystic fibrosis sweat chloride averages 106 mEq/L with a range of 50 to 160 mEq/L. In controls the average sweat chloride is 27 mEq/L and ranges from 3 to 60 mEq/L. The overlap is very slight. One per cent of patients with this disorder have normal sweat electrolytes.

While a similar sweat electrolyte abnormality has not been found to date in any disease except cystic fibrosis, about 20 per cent of relatives (children and adults) of known patients with this disease have shown increased sweat chloride and sodium, frequently with no other manifestation of this disorder.

Since the original studies these findings have been amply confirmed by others in various countries and have had a great deal of importance from the theoretical and genetic standpoint. In addition, the specificity and simplicity of the "sweat test" have led to its widespread use in diagnosing cystic fibrosis of the pancreas. Knowledge of the increased amount of sweat chloride and sodium has given an explanation of the unusual susceptibility to hot weather of fibrocystic patients, leading to severe and at times fatal consequences due to the massive salt loss through the sweat. Recognition of the mechanisms involved have pointed the way towards their prevention and treatment.

OTHER INVESTIGATIONS

Electrolyte levels in saliva and parotid secretory rate were found by us to be increased above normal in patients with cystic fibrosis. Both of these findings have since been confirmed by others, but do not have diagnostic significance as the individual variations are too great. Electrolyte levels in tea are also higher in fibrocystic than in control inc viduals. This finding also has only theoretic interest.

Recently we have been able to demonstrate tl presence of an abnormal mucoprotein in the du denal contents of patients with cystic fibrosis, r gardless of the presence or absence of pancreat function. This may well be present in mucus secr tions throughout the body, thus lending importar support to the hypothesis that mucus secretions i this disorder may be abnormal in structure, a fa which would help to explain many of the clinica manifestations of this condition.

DIAGNOSIS

In the majority of patients the combination c symptoms of chronic respiratory disease and thos of abnormal digestion consequent on the pancreati insufficiency suggest the diagnosis.

Patients with no lung involvement must be di ferentiated from other children with malabsorp tion, notably patients with celiac disease. In thes cases the presence of an excessive appetite and o malnutrition despite an apparently adequate dietary intake should lead to suspect cystic fibrosis.

Patients with chronic respiratory disease, bu no symptoms referable to intestinal malabsorption may present a more difficult problem. Of diagnos tic assistance is the fact that the great majority o children with generalized obstructive emphysem have cystic fibrosis.

More rarely patients with cystic fibrosis are seen with the presenting complaint of portal hypertension, heat prostration or subcutaneous bleeding du to vitamin K deficiency and an increased prothrombin time.

The "sweat test" is the simplest and most reliable single diagnostic procedure. It is generally performed with the aid of a plastic bag to make patients perspire and the sweat is collected in two patches of gauze (2 x 2 inches) in the scapular regions, the skin having been wiped with distilled water. Each patch of gauze is covered with a square of plastic and sealed at the edges with waterproof adhesive to protect against evaporation. After 30 to 90 minutes each one of the gauze squares is removed and analyzed separately for chloride with one of the methods available. If the titration is done in duplicate, thereby minimizing the possiilities of error, sodium does not have to be deterined. Sweat chlorides of more than 60 mEq/L are iagnostic of cystic fibrosis; values between 50 and o mEq/L are highly suggestive of this disorder.

Many simplifications of the sweat test have been evised. One is the "finger imprint method" elaboated by Shwachman, in which the high concentraion of chloride of the fingers of patients with cystic brosis leaves a heavy finger print on a specially repared medium in a Petri dish. An even simpler est and of easier interpretation has been devised y Webb in England. A drop of a two per cent ilver nitrate solution is applied to a piece of numer 2 filter paper. The patient then grasps for a ew seconds the filter paper between thumb and orefinger in the site where the solution was placed. One drop of a 10 per cent potassium chromate soluion is then put in the same site. If chlorides are above 50 mEq/L the color is bright yellow, if in the normal range the color is brick-red. In the presence of a positive test it is well to wash the patient's hands with tap water and after 20 to 30 minutes repeat the procedure to make sure the result is not a false positive one.

It is important to keep in mind that both the latter procedures are screening tests and should not be used to make a definitive diagnosis. If the suspicion of cystic fibrosis persists or is tentatively confirmed, a sweat test by the regular method should be obtained.

In 80 to 90 per cent of fibrocystic children a duodenal drainage shows absence of pancreatic enzymes and should be performed if possible to evaluate the function of this organ.

In the majority of patients with this disorder roentgenograms of the chest will show the evidence of chronic pulmonary disease and generalized obstructive emphysema.

The presence of other siblings with cystic fibrosis is of course of great diagnostic assistance, their absence does not negate the disease.

PROGNOSIS

The involvement of the respiratory tract usually dominates the clinical picture and determines the fate of the patient. While the effects of pancreatic deficiency are less important to the ultimate outlook, improvement in the character of the stools, avoidance of malnutrition and of vitamin deficiencies are essential to the welfare of the patient.

Additional hazards are cirrhosis of the liver with portal hypertension, meconium ileus and heat prostration.

However, if irreversible damage has not been done to the lungs by the chronic bronchopneumonia, patients improve after the age of 10 or 11 years. We are now following 60 patients of more than 10 years of age, the oldest 22 years old. Most of them are doing quite well and several have full-time jobs or are going to college. Several of the ones in this group have no lung infection and do not need any antibiotic therapy. However, the overall statistics are not as encouraging. Of the 500 patients we have seen to date, over 200 are dead, 90 per cent of them as a result of the pulmonary involvement.

TREATMENT

Active treatment of the pulmonary lesion with antibiotic agents deserves the major emphasis. A therapeutic course lasts from 7 to 15 days and includes the administration of procaine penicillin by intramuscular injection (400,000 to 1,000,000 units per 24 hours) and if necessary of streptomycin by the same route (40 mgm. per kilogram body weight or 1 gram per 24 hours according to the age of the patient). Crystalline penicillin (200,000 units) and streptomycin (200 mgm.) are also given by inhalation, both drugs being mixed together in 2 cc. of saline. One of the broad-spectrum antibiotics (tetracylines, chloramphenicol, or erythromycin plus one of the sulphonamides, etc.) is added by mouth in dosages of 50 mgm. per kilogram body weight per 24 hours for children. If evidence of lung disease persists (as is usually the case), broad-spectrum antibiotics are given orally in prophylactic dosage (10 to 20 mgm. per kilogram body weight per 24 hours for children) for an indefinite period. Emergence of resistence to antibiotic agents has caused increasing concern. However, despite this possibility, continued administration of these drugs is imperative. Choice of the broad-spectrum antibiotics should be based on the results of sensitivity tests of the flora in sputum cultures. Chloramphenicol has been in our experience the most successful single agent.

Surgical procedures for the relief of the pulmonary disease are indicated only in selected cases, because of generalized nature of the lung involvement. Bronchoscopy is difficult in small children and only occasionally of assistance in older patients. Postural drainage, wetting agents or even saline by aerosol inhalation may be helpful.

In patients with normal pancreatic function no dietary measures are needed. Even in the ones with pancreatic deficiency the nutritional state is more closely correlated with the severity of the lung involvement than with pancreatic function. In addition there is a great deal of individual difference in the need for dietary restriction among patients with pancreatic achylia. Improvement in the character of the stools and in the state of nutrition can be obtained when it is needed by a high caloric, high protein, high vitamin, low fat diet. Pancreatic extracts should be given with every meal. Liberal use of the salt shaker is advised at all times and in summer additional salt is needed (two to four grams per 24 hours).

Meconium ileus and portal hypertension due to cirrhosis of the liver and leading to gastrointestinal bleeding require surgical treatment. Massive salt depletion in hot weather may present a real medical emergency. Saline intravenously is urgently needed in such cases to reconstitute an adequate extracellular fluid volume and avoid cardiovascular collapse. Ten to 15 cc. per kilogram body weight of saline should be administered intravenously in 10 to 15 minutes and a total of 10 per cent of body weight of total fluids (properly selected) should be given in the first 24 hours.

CONCLUDING REMARKS

As obvious from what has been said, conception of cystic fibrosis of the pancreas has changed a great deal in the last 20 years. The pathologic lesions in the pancreas and clinical effects of pancreatic deficiency attracted attention first and gave the disease its name. Pancreatic involvement was considered the basic defect by the early investigators (Andersen, Blackfan and May, Harper). It was later pointed out that a widespread defect in mucous secretions throughout the body might explain many of the symptoms of cystic fibrosis and the name "mucoviscidosis" or "mucosis" proposed (Farber, Shwachman, Bodian). With the recent demonstration that sweat and salivary glands are consistently affected in this disorder it became e dent that cystic fibrosis is in reality a generaliz disease involving most or all exocrine glands, muc producing and others (di Sant'Agnese).

It is also recognized now that in cystic fibro there is variable involvement of the areas affect and that incomplete forms of this disorder occu This suggests independence of involvement of the various organs, perhaps under genetic influence.

Recent studies indicate that in cystic fibros there are three defects in function of exocri glands: 1. A probable structural abnormality in th mucus secreted, which might give a reasonable e planation of the pulmonary, pancreatic and hep tic manifestations. This hypothesis has receiv important support from studies which have show the presence of an abnormal mucoprotein in du denal content of fibrocystic patients. 2. An elevate concentration of electrolytes in sweat, saliva an tears. 3. An increased parotid secretory rate. The exocrine glands, different in function and in th products they elaborate, are thus affected in diffe ent ways. The common denominator has not bee recognized as yet. Whatever the nature of the bas defect it appears to be genetically transmitted.

Cystic fibrosis of the pancreas accounts in chi dren for virtually all cases of pancreatic deficienc for a great majority of those with chronic (no tuberculous) pulmonary disease and, in our exper ence, for a third of pediatric patients with cirrho sis of the liver and portal hypertension. It is thu the most common chronic lung disease of childre and one of the most frequent chronic disorders i the pediatric age group. It is being recognized wit increasing frequency in adolescents and youn adults. The generalized disease called cystic fibrosi of the pancreas deserves, therefore, greater recogn tion by the medical profession than accorded i so far.

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RADIATION AND THE HUMAN RACE

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SUMMARY

The beneficial results of natural radiation are pointed out. Artificial sources of radiation are discussed, particularly radioactive fallout such as occurs at testing areas and such as resulted from the bomb explosions in Japan in World War II. The ordinary therapeutic use of radiation is not harmful but if applied in certain unusual ways it may be harmful. In dealing with the present controversy between radiologist and biologist, an important fact to remember is whether the radiation is delivered acutely or chronically. The amount, the manner of reception, and the kind of radiation are important.

There was a time when radiation seemed relatively far away and reasonably under control. When I had this opportunity to come and speak o you here at the Hospital of St. Raphael, I accepted it with a great deal of pleasure. First, because I remember a visit when I was a medical student in 1922 when I came down to watch your surgeon, Doctor Verdi, operate and I remember still the kindness of the Sisters and the staff at that time. Second, I have good friends here, particularly Doctor Nesbit and Doctor Mann and I am delighted to see the fine laboratories in which they are working for you and for the patients under your care.

BENEFITS OF RADIATION

In this discussion about radiation that Dr. Shapiro mentioned, there have been extremes of overstatement and understatement. While we have not yet the ultimate truth in this problem, we have certain facts that we can depend on with a fair degree of certainty and those I would like to call to your attention. First in this discussion there has been all too great a tendency to forget the good of radiation. Many of us would not be here if it were not for the individual help that we have had through diagnostic radiology. There are many of the general population who would not be alive today were it not for the mass help that has been brought about particularly in public health. Many of you can recall the early days when TB was much more of a problem than it is today and in thinking back you will remember how major a part the mass chest surveys played in bringing this disease to the extent of control under which it is today. With your splendid radiation therapy center, I do not need to recall to you the many good things in the field of treatment that radiation can do.

Now we all are radioactive to some degree. Where does that radiation come from and what is the radiation to which we are exposed? First, there is natural background radiation. The soil in New England is largely an igneous soil with a relatively high content of radium compared to other soils and some of the radiation that we get comes from the traces of radioactive elements in the soil and leached by the water from the soil. Some have become assimilated into our bodies: radium, decay products of radium and the radioactive isotope of potassium. We are all exposed to the cosmic rays. About the only way to get away from them is to ship on the Nautilus or the Sea Wolf and spend most of your time underwater or, if you go deep enough in mines, you can get away. But radiation

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is around us, has always been around us so far as we can tell from the study of geology.

ARTIFICIAL SOURCES OF RADIATION

Then with the discovery of strongly radioactive materials and the discovery of the x-ray at the turn of the last century, we began to get artificial sources of radiation in addition to these natural sources. My wrist watch, for example, has radium paint on the dial, fortunately under control there and not able, as in the case of the New Jersey dial painters of twenty odd years ago, to find its way into the body and do harm. None the less the skin on the back of my wrist gets one-tenth of an r in the some sixteen hours that that wrist watch is there. This is not anything to be worried about because it is a small area of the body and because the dose is small. In addition to x-rays and radium as artificial sources of radiation, with the Alamogordo test in 1945 and with the various weapons tests since, with the production of radioisotopes both from atomic reactors as well as cyclotrons and other atom smashing devices, we can make practically any element in the periodic table radioactive. In some instances, particularly in the hydrogen weapons tests, we scatter that radioactivity widely. There are also sources such as the wastes from atomic plants, the use of radioisotopes in industrial research and in industrial control processes so that radiation is a part both of our environment and of all of us. Everyone of us here, everyone on earth has a few particles of radioactive strontium breathed into his lungs and still resting there. Radioactive strontium did not exist until man had been given the power to split the atom, and to learn how to make intermediate substances and to derive energy from this process.

RADIOACTIVE FALLOUT

This radioactive fallout that we hear about is something quite new. If you had mentioned the word in 1944, no one would have known what you meant. If you had mentioned it in 1945, a handful of people who had worked at Los Alamos, the Argone Laboratory in Chicago, who had been at Hiroshima and Nagasaki, might have known what was meant. With the Bikini tests the radioactive fallout, the ashes of the atomic explosion that were scattered in the underwater explosion over nearby islands and the fleet of target vessels became a reality and a serious operative problem. I remember on one of our aircraft carriers, worrying as t what my Geiger counter was going to show whe I got up on the deck, and sure enough it wa plenty hot from the radioactive fallout that ha occurred there. I had only twenty minutes to tr to get our most important animals out and the we sent relays in to get the others. Radioactiv fallout, thanks to the discussions in the public pres in recent years, has now become a household word Just what do we mean? We mean two types o things. There is a radioactive fallout that cam down on the Marshallese Islanders after the explosion in 1954, the same fallout that was th brown snow that brought burns and illness to th crew of the Japanese fishing vessel caught withi the fallout zone. This type of fallout is debri from the earth where the explosion had occurre (remember, there was a crater left in which fourteen Pentagons could be dropped) impregnated with and plated with radioactive material which could produce burns of the skin and penetrating radiation to the body. The great bulk of the fallout, however, does not mix with earth and if there is no contact of the fireball of the explosion with the earth, it goes squarely up into the stratosphere and is distributed there in finely particulate form, about one-tenth to five-tenths of a micron in diameter. There it slowly settles out. The bulk of radioactive material from the test explosions so far is tucked away in the stratosphere at the present time and slowly settling down. When it comes down it is brought in contact with the clouds, with the winds of the lower atmosphere, and settles out largely in relation to heavy rainfall or snowfall regions so that it is carried to earth there and can exert greater or less effect according to its concentration. If one takes a core of snow from Greenland or from Antarctica, and slices it and melts that snow and analyzes its radioactivity, one can say with considerable accuracy: this was the snow of 1957, this was the snow of 1956, this was the snow clear back in 1946.

EFFECT OF RADIATION ON GENES

What are the effects, what is the significance of this radiation and why do we see so much about it in the press? First, let us remember that with the exception of very rare areas such as the monzonite sands of Travancore in India and portions of Brazil, the radioactive mines from which Madame Curie first got her radioactive samples at Schneeerg and Joachimsthal in Bohemia, except for these e concentration of radioactivity everywhere in e world is low. It is assumed that radioactivity ill do two things and these assumptions are borne ut if we use large amounts of radioactivity. We ssume that all the naturally occurring mutations hat occur in man, perhaps ten per cent to fifty per ent, may be related to radioactivity. The release f energy that comes from radioactivity, if it comes n contact with a critical part of protein molecules which go to make up the gene, the unit of heredity, nder these circumstances produces the destruction r breakdown of a part of the molecule and it is ither changed or destroyed as a functional unit. We are used to thinking of genes as determinants f blue eyes or brown, red hair or black; we are sed to thinking of them as determinants of blood groups, as related to the ability to carry out certain iochemical processes, for example, the breakdown f aspartic acid, the ability to taste phenyl hydrazine. These things are related, as is all our bodily form and most of our function, to these units of inheritance, the genes. We do not know how many of them there are in man, probably somewhere on the order of three to five hundred thousand as a rough guess, and you and I exist as individuals because of peculiar combinations of these. Effects that are not sufficiently great to register with us in our own body cells may be sufficiently great to register from the genetic standpoint by producing changes in these genes. There is a very sharp difference between the dose of radiation that will produce harmful effects in our bodies in our lifetime and the doses that may produce alterations in our genes that could be passed on to our descendants. For example, it is not unusual in radiation therapy to use thousands of r of radiation to limited fields to portions of the body and to cure patients thereby rather than harming them. A dose such as this given to the germ plasm would be totally destructive of the germ plasm or given to all of our bodies, total body radiation instead of a portion, again would be destructive of life. So what is a useful servant in one way can be a very dangerous one in others. It is somewhat analogous to the electric current that gives this light or that amplifies my voice; under control it is indispensable, on the other hand it can kill if out of control. And the job of the medical profession, and of the radiation physicist is to keep it under control and see that it stays under control. It is the job of everyone wherever he may be on the earth, to do the utmost that he can for the avoidance of war because a nuclear war would be a type of disaster that relatively few would survive. One would have to go back to the days of the black death of the Middle Ages to find a comparable disaster to it.

THE CONTROVERSY WITH THE BIOLOGIST

You see from time to time in the press, or perhaps saw would be better because there is not as much excitement now as there was in the spring and summer, statements that because of the weapons tests that have been carried out, because of the atomic plants that are functioning, that so many thousand people will develop leukemia, so many thousand will develop bone sarcoma. This is a type of statement that is very difficult to refute because it is as hard to prove that it is untrue as it is hard to prove that it is true. The reason is this: with very low level radiation we deal with probabilities in biologic matter. You all know that you can put a dab of iodine on one person's skin and nothing happens except a brown stain, on another person's skin and a nasty dermatitis results. You know that you can inject novocaine thousands of times and get only relief of pain. Once in a while you will find a hypersensitive individual who gets into real trouble. These things the people trained as physicists and chemists do not know, do not understand. For them every atom acts exactly like every other atom. If you take so many grams of hydrochloric acid and so many grams of sodium hydroxide, you get so many grams of sodium chloride; no matter how many times you try it, it always comes out the same. You all know that your patients vary. This concept is one that is very difficult to get across from the radiologist to the biologist. The other one that makes difficulty and has led to controversy in this field, is the difference between a threshold dose and a linear response. If there is only one molecule of hydrochloric acid in solution and only one molecule of sodium hydroxide, ultimately they will neutralize one another and again sodium chloride is a product. This is something that just has to happen according to the chemist and the physicist. On the other hand we know perfectly well if you give an infinitesimal amount of digitalis to a patient, nothing happens. You have to get to a therapeutic level to have something happen. Otherwise we would be still practicing homeopathy. Infinite dilution does not work. The fundamental difference I find when I talk with my friends in physics or in chemistry, many of them very distinguished, who calculate out the number of people that are damaged by each bomb test or the aggregate of bomb tests, is that they cannot realize that human beings have reparative mechanisms and they have variability which atoms and chemical molecules alone do not have. The fundamental quarrel then, the thing that has led to so much discussion in the press, is asked whether or not there is a threshold dose and how much healing may occur. If a person gets an acute single dose of radiation, 400 r will kill about half of a given population; this is what held at Hiroshima and Nagasaki. We will find that there will be a few that die with as little as 150 r or a few that will survive 600 r; half die at this 400 r level in an acute dose. On the other hand, in divided doses many of the radiologists in the old days exceeded this and did not die at once although they did show some degree of life shortening. It makes a great difference whether radiation is acutely or chronically delivered. There is less damage when radiation is delivered chronically because of the reparative ability of the body than when the same dose is delivered acutely. When a person receives a significant, and by significant I mean an acute dose of 75 r total body radiation or above, we see a detectable effect. I have tried roughly to calculate the dose of total body radiation I have received over the years. I am not a radiologist but I have experimented with radioactive things for quite a while and as near as I can make out, I have probably received somewhere around 400 r by now from various sources. I was young and foolish once and did things then that I probably would not do at the present time. I do not know whether this is going to shorten my life span or not, probably not appreciably, and I am sure that it thus far has had no particular somatic effect upon me. If this had been delivered at once, the odds are that I would not be here talking to you at the present time.

So one cannot talk just about radiation. You must talk about the amount of radiation, the way in which it was received and the kind of radiation that it was. There are x-rays, there are gamma rays, there are neutrons, beta particles, alpha particles—all these while they act the same so far as end results are somewhat variable so far as effect is concerned quantitatively related one to another. We have a factor we call the relative biologic efficienc where we take that of x-rays as one and the alph rays of radium as ten with neutrons somewher in between.

The interesting thing has been when we studie the physical reactions of the survivors in the Nagasaki, Hiroshima area, how closely they came t those of the thousands and tens of thousands o experimental animals that had been used, and w actually found that we could predict with a goo deal of accuracy what would happen six weeks, six months, indeed six years after the explosion, on the basis of the animal work that had been done. And so far nothing has been found in the Hiroshima, Nagasaki survivors that was not expected and predicted in the early days on the basis of the very careful animal work that had been done. This gives us a good deal of hope. Whether we like it or not we must live with radioactivity from now on out. If we stopped our tests, the Russians would not stop theirs. If all of us stopped our tests, there would still be radioactivity sifting down from the stratosphere and coming into contact with the surface of the earth and thereby potential risk for us. Now what is this potential risk? Fortunately it is extremely slight. Those of us who live in a region like this get probably about 4.5 r of radiation by the time that we are thirty years of age from external background sources. This does not do us any harm. This may have contributed over the aeons that humans have been evolving, to the total load of mutations that they carry. The probability of any one mutation having been produced by this in any one lifetime is relatively slight. If we take a region like Denver, Colorado, for example, there is no greater prevalence of leukemia, no greater prevalence of osteogenic sarcoma, no greater prevalence of malformations there than here although, thanks to the amount of uranium in their soil and thanks to the higher cosmic radiation they receive, in a thirty year period people there would get almost twice as much radiation as we. One of the great troubles in getting this risk pinned down accurately is that we just cannot devise an experiment that will give us the answer. At Oak Ridge there are mice, mice that have been working industriously in tens of thousands, in hundreds of thousands to tell us the hereditary effect of radiation. Their mutations are being studied after amounts of radiation ranging from 150 to 1000 r and we know that this produces mutations. We can mease the mutations but even with hundreds of thou- nds, we do not have enough animals to say flat- otedly to anyone, "look, your statistics are no od," and the reason that we cannot do that is at we are dealing with biologic material and the obable error of the experiment is greater than e factor we are dealing with. I can pick up these o chairs and think, yes, that one of them is ob- ously heavier than the other because it has an h tray on it. But, for the life of me, I could not ll blindfolded which one of those two chairs had e ash tray on it because the sensitivity of per- ption in weight is not sufficiently great to meas- re that increment of weight. That is the problem at we are up against in trying to say whether the two and more billion population of the rth there are going to be X thousand or Y thou- nd or Z thousand or zero people that get into ouble because of radiation. No matter how you lan your experiment, you just cannot tell. What ne has to do is to experiment at much higher vels and try to test as well as one can whether r not one is justified in extrapolating from these igher levels linearly down to the lower levels. The enetic experiments in fruit flies where we can get nillions of individuals with which to work, indi- ate that there is what we call a linear effect. If ou have an effect at 1000 r, at 500 r, at 300 r, t 100 r, and if you draw a line through those and arry that line to zero, it probably will give an ccurate extrapolation. On the other hand, when we are dealing with the somatic effects, the effects hat develop within ourselves, the evidence is almost equally strong that we are dealing not with inear effects but with threshold effects. We know hat there are many things so far as our own bodies, s our own cells are concerned in which this prin- iple of linearity, this extrapolation down to zero does not hold. The threshold effect which we as doctors are so familiar with, does hold. You would not, for example, in a patient with streptococcus septicemia—thank heaven, those are rare now, it used to be the pathologist's occupational disease—you would not give one hundredth of the dose of penicillin and expect anything to happen. You would have to give a full dose of penicillin or you would wind up with simply a resistant strain of streptococcus. So there are really three reasons that we cannot say to the physicist or the chemist who becomes an amateur doctor, an amateur biologist—this is nonsense. One, we cannot devise an experiment to prove it because we would have to go into so many millions that just the statistical error of handling the animals would be greater than the answer that we are hunting for. Second, we are dealing with a biologic mechanism which has built into it the principle of repair; that is the only reason that any of us are here at the present time. Third, there is this principle of the threshold versus linearity. One reason that the controversy lasted as long as it did and it will still last to some extent, is that in all honesty we cannot give flat-footed answers. We can tell you some statistics and give you a chance to judge for yourself.

LESSONS FROM HIROSHIMA AND NAGASAKI

Those who survived within the one thousand meter zone at Hiroshima and Nagasaki, and there were some who were partially shielded who did so, probably received somewhat over 300 r. These have developed many times the amount of leukemia that occurs in the general population, roughly a thousand times as much, but still this is relatively insignificant. The total number of cases that have developed up to the present time is 1.3 percent of the total exposed population and this is certainly not an appalling risk level. Radiologists have from seven to ten times as much leukemia as other doctors or the general population. When we say this we have to remember that we are including the radiologists that did not know how to protect themselves and did not have apparatus that permitted themselves to protect themselves back in the late 1920's and early 1930's. The picture has improved since then but assuming they have ten times as much leukemia, what does that mean? There are 4500 radiologists and if there is ten times as much leukemia, there will be five cases per ten thousand per year or perhaps an average of two cases a year among the 4500 radiologists. Not very heavy odds to keep anybody from going into radiology. Let us look at it from another angle. We speak of life shortening and there is evidence that the survivors at Hiroshima and Nagasaki are dying approximately twice as fast as are the unexposed inhabitants of those same cities. Part of this is the general disaster effect. To go through anything such as that with the attendant starvation, exposure, all of the problems incident to any great catastrophe, is enough to shorten life somewhat but radiation adds to this. In studying the radiologists who died, we found there was approximately five year life shortening on the average for them. We do not know how exact this is, we do not know how many people went into radiology because they were not as fit physically as surgeons perhaps. Be that as it may, whether we take the people in Hiroshima, whether we take rats at Rochester, New York or mice at Ames, Iowa or dogs at Davis, California, to mention a few of the long scale longevity experiments that are going on, we find that there is some life shortening from the larger doses of radiation. On the other hand, we see careful radiologists like Dr. George Holmes whom some of you may have known at the Massachusetts General Hospital, who is now well in his eighties and is happy as a clam. By and large the things that we should worry about are excessive doses, doses beyond the permissible dose level. And how does radioactivity from bomb testing compare with these permissible dose levels? Hundreds of thousands of measurements have been made all over the world. Because I happen to be the United States representative to the UN Scientific Committee on Radiation, all of these come to me and from them we have been able to determine that there is no place on earth where these measurements have been made, whether they come from Australia, Africa, South America, Greenland, different parts of the United States, different parts of Europe, where you will, there is no place where the level exceeds one-thirtieth of the amount that both the geneticists and the biologists working in the field agree is a permissible dose level, not for occupational purposes but for general population purposes. We divide the occupational dose by ten to apply to a general population because working people are largely healthy, husky and looked after medically while in the general population we have infants, we have invalids, we have pregnant women and it is essential that these should not be subjected to even the occupational hazard level.

We cannot speak for what our children, our grandchildren and great grandchildren will do. I hope they will have found the pathway to peace. I hope they will have found how to get the utmost in good from the atom. However, for us to stop because of fear now is to deny them perhaps their very means of existence because as you know, the fossil fuels of today have a distressingly short projected life. So if our children's children are going to be able to keep warm, are to be able to move from place to place, are to be able to advance knowledge, not only must we explore this new field but we must learn how to do so in peace.

Question: What is the relationship between nuclear testing radiation and medical diagnostic gonadal radiation in New England?

Answer: One would have to strike an average on both. I would say the ratio here in the New England area is a bit lower than some places. I think probably because of the very high level of diagnostic care, medical care in general, that our patients receive possibly a little higher dose of x-ray. Just as a rough guess, I would say about one fiftieth of the medical diagnostic level is the level that comes from atomic tests at the present time and projected on for a thirty year period. However, there are sharp reductions being made in the gonadal exposures diagnostically. The radiologists are developing some very useful technics in this field.

Question: Does each explosion lead to accumulative effect or is the life of the radioactive material short enough so that it loses some of its effect by the time it falls?

Answer: There is a very considerable mixture of material, some with just a few days half-life, others with some years. Since we like to calculate on the safe side, we calculate on the longer half-life material and I would say that if we were to stop testing now, the level would not change appreciably during the next five years.

Question: What is your opinion of Dr. Muller's statements?

Answer: As long as he sticks to straight genetics, there is no greater authority in the world. When he begins to apply some of the factors leaving out the principles of thresholds that I have mentioned to you, the reparative effects, I find that I am not able to agree completely with him. I am more optimistic than he although he himself would accept this level of 10 r per thirty years from various types of explosion.

Question: The results of the late experiments on human kidney show chromosome fragmentation of exceptionally low radiation intensity. What is your opinion of this?

Answer: One can with certain tissues under certain circumstances get chromosomal breaks. These sometimes recombine to a very appreciable degree. I do not think these experiments alter our general opinion of the sensitivity of the organism as a whole.

Question: Several years ago at San Francisco you lectured to the American College of Physicians on the same topic. Someone asked you at that time how many atom bomb explosions would terminate life? Your answer then was about fifty. What's your answer now?

Answer: I think that it was not worded in quite that form, if I remember the question. The question was worded: how many of the megaton-type explosions would be safe and I think I answered fifty to that. My general views have not changed over this period. I would not like to see fifty large scale megaton explosions added to those we already have but I am sure it would not end all life.

Question: Are there any studies from India on their higher background level?

Answer: Yes, they have two populations of similar ethnic composition: one, at background level similar to ours; an-er, at background level about fifty times as high. The pulations seem superficially equally healthy, the birth rate the same. Detailed studies in hematology, etc., are now ing undertaken by the Indian Government.

Question: Much has been written about radiation during egnancy. After what week of gestation do you consider it e for the baby or the mother to be irradiated?

Answer: This hinges on whether you are worrying about kemia or genetic effects, or what? The fetus is most sensi- e in the first trimester. It is not immune to irradiation at y stage. The observations of Alice Stewart in England dicate that the children born of mothers who had radiation pelvimetry have approximately three times as much leukemia as those of mothers who had not had pelvimetry. The general rule is, I think, if it is worthwhile for the welfare of both mother and child, by all means do radiation pelvimetry; otherwise avoid it at any stage but remember the first trimester is the worst.

Question: What do you think of intravenous pyelography during pregnancy?

Answer: I would avoid it if I could. One thing that you do of course in any radiation of the pelvis during pregnancy is that you get in a twofold lick as far as the genetic effects are concerned; you are getting two generations at once.

ELECTION OF PATIENTS AND EVALUATION OF PROCEDURES OR CARDIAC SURGERY

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SUMMARY

A discussion of the selection of patients and f the operative procedures followed in congenital cardiac disease is offered. Patent ductus rteriosus, coarctation of the aorta, pulmonary stenosis, tetralogy of Fallot, interauricular defects, and intraventricular septal defects are treated in detail. Correction of the first of these is the easiest. The author emphasizes one very important point, viz., that cardiac disease is more than a mechanical defect and it is only the defect which the surgeon is able to correct.

In the field of acquird cardiac lesions surgery is now tackling the problems of mitral stenosis, mitral insufficiency, aortic insufficiency, arteriosclerosis, and dissecting aneurysm. Of these, mitral stenosis is the most amenable to surgery. Selection of patients is important in view of current mortality figures. The risk is high in operations for mitral insufficiency. Patients with aortic insufficiency should be operated upon early before there is too great a loss of myocardial reserve. The type of operation for this condition is changing due to an increase knowledge of the disease. In localized arterial obstruction, aneurysm of the abdominal aorta, and dissecting aneurysm there is a definite salvage possible with surgical intervention.

The operative procedures in this rapidly advancing field are in a state of change but future progress is a certainty.

The past fifty years have been very eventful. The attitudes of physicians toward new ideas have always been conservative, and this is good but it also has elements which delay the progress of events. One should attempt, therefore, to evaluate what has been accomplished and to estimate how this will be of help to each individual patient.

The initial modern advances in the field of cardiovascular surgery were made in the area of congenital heart disease. It was only in 1939 that the first successful ligation of a patent ductus gave new stimulus to the field of cardiovascular disease. It is worthwhile to emphasize that many of these advances have been made possible through the application of knowledge gained in nonmedical areas of science.

PATENT DUCTUS ARTERIOSUS

The simplest of these lesions to correct surgically in the congenital group is the patent ductus. This lesion exists in many forms but fortunately the common variety can be diagnosed usually by auscultation combined with the ordinary fluoroscopy and x-ray of the chest and electrocardiogram. The typical murmur with its characteristic physical findings makes the diagnosis possible by auscultation and physical examination in the majority of instances. The mortality rate has changed until it now approaches one per cent. We recommend operation in all patients with characteristic lesions when the diagnosis is made with or without symptoms because the results are so satisfactory and the risk is so low. The patients who require special attention are those who have unusual forms of ductus in which the diagnosis is not quite so clear and in whom the pulmonary pressure is high. This type of patient presents many problems. The differentiation between this kind of a lesion and an aortic septal defect is sometimes difficult and the diagnosis may be made only by catheterization and special angiographic studies. But even in these instances when pulmonary hypertension exists, if the flow is not already permanently reversed, we believe that operation is indicated. When the flow of a ductus is variable: that is, partly to the left, sometimes left to right, this certainly is strong indication for urgent operation early. After complete reversal of the shunt, operation carries high risk and there is considerable question whether in these patients operation should be advised. In many instances we will explore the patient and take pressures at the table and after occluding the ductus decide, if the pressure rises, that we will not proceed with operation, but if it falls we will then go ahead and close it.

COARCTATION OF THE AORTA

Coarctation of the aorta was another of the early lesions which was attacked and there has been great progress in the technical details of the procedure for its correction. It can now be corrected with minimal risk. An average of the coarctation operations done by the principal centers of the United States, which were carried out about a year ago, showed that the overall mortality rate for these combined centers was about two and one-half per cent. Th included complicated patients of all varieties an contrasts strikingly with some of the early work which operation could not be completed for on or another reason, particularly the length of th coarctation and so on. Aneurysm of an intercost artery or the distal aorta is one of the great da gers of allowing this lesion to persist and is on of the causes of sudden death. Aneurysm occurrin here is subject to rupture and this is particular true in patients who are over the age of twent Aneurysms may occur as early as the age of s years and upward. The presence of a dist aneurysm can not always be accurately determine by any method short of exploration. It is for th reason that elective operation should be advise in all patients who have this lesion, provided ther is not some other strong contraindication on an other medical basis. When a large defect exists s that the area of constriction is long, it is necessar to interpose some type of graft to restore the continuity of the aorta. We now have methods of handling most of the complications which can occu from coarctation. With this general backgroun you can anticipate that age *per se* is not a bar t the correction of such lesions. It is worthwhile t recall that the patient who is in the older ag group has an aorta which is more difficult to wor with and his risk is somewhat greater than th patient who is younger. When one operates o patients in the very early years of life before th age of ten or twelve, risk is extremely low an the procedure becomes technically a great dea easier.

PULMONARY STENOSIS

When these procedures had developed to th point at which they were feasible for clinical application, it was possible to proceed with other o the congenital lesions. One of these was pulmonar stenosis. Methods were devised for the correctio of valvular pulmonary stenosis by placing a knif through the ventricular outflow tract just belo the valve and incising the pulmonary stenosis These methods, which embodied actually severa different technical approaches, were quite successful and were able to open the valves reasonabl satisfactorily in the majority of instances. However there have been new methods which have appeare to be more practical and for pulmonic stenosis o the valvular type open operation is preferred

Vhen one has the opportunity to visualize the esion directly on the right side of the heart, one an do this most simply with the use of hypothermia, provided it does not necessitate an excessively ong period within the heart. The problem of obaining a period in which one can occlude the blood flow from the vena cavae so as to obtain a ry field has been fraught with the problem of entricular fibrillation. This has been overcome in number of ways but the method which is currently used is primarily hypothermia of approximately thirty degrees centigrade. The body temperature is lowered by a variety of means to this level. The simplest way to lower the body temperature is to pack the patient in ice. The body temperature of a child can be lowered in about twenty-five minutes. When this has been obtained, the chest is opened, the inflow occlusion is obtained and one opens the heart at the level he wishes. In the case of pulmonic stenosis, the opening is made n the pulmonary artery just above the valve and the pulmonary artery is held open. One looks at the area of obstruction, divides it directly with a pair of scissors, and then closes the pulmonary artery. This takes approximately two or three minutes. One then takes pressures across the valve and if there is still a gradient of pressure across the valve, it must be opened further. One then gets a gradient which is zero. When this is obtained, this is a satisfactory operation and there is no question as to whether or not the patient will be better. Sometimes infundibular stenosis also is present so that there will be two levels of obstruction.

Pulmonic stenosis is varied in its forms and sometimes exists with other defects, primarily those of an interatrial septal defect. In this case the patient may be cyanotic, which is not true if it is pure pulmonic stenosis, or stenosis may exist with an interventricular defect alone or with an interventricular defect and overriding of the aorta, known as tetralogy of Fallot.

TETRALOGY OF FALLOT

Tetralogy of Fallot is the common variety of blue baby which has been so popularized by the advent of the indirect method for the relief of this condition, the shunt operation. It is worthwhile to point out that when one has a communication between the right and left ventricle in the presence of pulmonic stenosis, there can be a great variety of degrees of cyanosis. This cyanosis which exists in tetralogy of Fallot does so as the end result of the amount of overriding, the size of the interventricular defect and the degree of pulmonic stenosis. If these factors are properly balanced, one can have an individual who has very little actual shunting of blood and gets an adequate amount of pulmonic flow. When tetralogy of Fallot exists in its cyanotic form, which is the common one, then the blood which goes out through the aorta is highly unsaturated and accounts for the cyanosis. If one then puts some of that unsaturated blood back through the lung, he can increase the degree of saturation of the blood. It was upon this principle that the operation devised by Blalock and modified by Potts to reroute some of the blood from the aorta or one of its branches to the pulmonary artery was based. These operations were extremely helpful and have been very successful in the rehabilitation of large numbers of patients. There has been a strong tendency as time has gone on to gradually take a more direct approach to these problems. In treating tetralogy of Fallot by a shunting operation another defect is created. However, this procedure has certainly been very helpful.

We now have gradually swung to the point of direct correction of tetralogy of Fallot just as we have turned to the direct correction of pulmonic stenotic lesions. The mortality rates from the direct correction of tetralogy of Fallot, however, are still high. If one takes really overall figures rather than the figures of the real protagonists of direct correction, one will find that the mortality rate in correction of this lesion will approximate thirty per cent. This is in striking contrast to the mortality rate from a shunting operation which will approximate ten per cent, depending upon the circumstances. In all lesions of this cyanotic tetralogy type, the mortality rate from any operation is related in some degree to the age of the child when operation must be performed. A child who is having such severe symptoms that he must have an operation at the age of six months, has a lesion which is much more severe. He also has other results of this severe lesion which makes it a great deal more of a problem than in one who gets along quite well until he is eight years of age and then begins to show some signs of trouble. The mortality rates in shunting operations have been higher in children under two and, if it is again true tetralogy of Fallot and not tricuspid atresia or some other lesion, the mortality rate under the age of two has been about fifteen to twenty per cent; over the age of two, the mortality rate is approximately ten per cent. As one gets into the older groups from six to twelve, the mortality rates are still lower. Shunting operations still have a place until the technics for the direct correction have progressed further. It is worthwhile to point out, however, that even with shunting operations there is a delayed loss of patients over the following few years and that another ten to fifteen per cent of the patients die as the result of their disease in spite of operation. If one calculates the long term loss of patients, one ends up with figures which are not too dissimilar. This has been a strong point in favor of some direct correction, because if the lesion is entirely cured at a single procedure which carries a mortality rate of twenty-five per cent, this is probably better than a similar rate of loss of patients over a period of five years.

INTERAURICULAR DEFECTS

More and more of the congenital lesions are becoming surgically correctible. Striking progress has been made in the correction of interauricular defects. Interauricular septal defect until five years ago was really considered a lesion which had very little possibility of correction. Now using hypothermia and the direct approach, one can handle these lesions with an extremely low risk. There are other ways than the direct which are also applicable and in certain cases are probably even preferable. The closed methods are simple, require little time and carry very low morbidity rates. When the lesion is complicated, however, it is necessary to open the auricle directly in order to see the lesion and to completely close the defect or defects, because auricular septal defects are frequently multiple and there may be associated anomalies of the pulmonary venous drainage which require visualization for their total correction.

The diagnosis of interauricular septal defect again has become greatly clarified with the information which has been obtained by study in trying to determine what patient is suitable for operation, and correlating the findings of operation with the physical findings and laboratory findings which have been obtained beforehand. It is now quite possible to distinguish ostium primum defects from ostium secundum defects usually by simple examinations and to determine the proper course which one should follow. The mortality rates in ostiu secundum defects are extremely low and the mo tality rates in ostium primum rates are mu higher. In ostium primum defects technical a vances are being made. The difference in the two lesions is that in an ostium secundum t defect lies high in the auricular septum an in an ostium primum it lies low and tends involve the valve, tricuspid valve or mitral valv or both, and to involve the base of the interve tricular septum. Ostium primum defects are us ally associated with a cleft in the tricuspid val so that when there is present tricuspid insufficien and also sometimes a defect in the mitral valv it is possible, using the pump-oxygenator by-pass, t repair not only the defect but actually to close th clefts within the valve leaflets themselves. Occ sionally it is necessary to open the right ventricl as well but one can approach the mitral valv through the interauricular septum, since it is open and close the defect from the right side.

INTERVENTRICULAR SEPTAL DEFECTS

Another of the major congenital lesions is th interventricular septal defect. This is a lesion which tends to be rather easily diagnosed. It commonly exists in association with other lesions, particularly a patent ductus. The lesion tends to li high in the interventricular septum up behind th tricuspid leaflet; it exists in manifold forms, an it too must be repaired by open operation. It usually requires only a few minutes to do this, but with the heart beating, and since the defect tends to lie high within the septum in a difficult place to approach, most surgeons have gradually adopted the technic of by-pass rather than attempting to do this under hypothermia which has not been at all satisfactory. Many clinics now employ complete cardiac arrest, using drugs such as potassium citrate, acetylcholine or a combination of potassium, magnesium and acetylcholine. With this method one can occlude the inflow, perfuse the brain and all of the organs except the heart, put the heart into arrest and hold it there for relatively indefinite periods of time. Some defects are so complicated, particularly those of tetralogy of Fallot in some of its forms, that one must try to transpose the interventricular septum to correct the over-riding. This entire procedure requires considerable time. One need have no serious fears about prolonging this period up to forty-five mintes or an hour. During this period the body is erfused with oxygenated blood. We employ a mple pump oxygenator. It is an air activated nit entirely mechanical and not dependent upon ny electrical connection.

With this type of apparatus, one can perfuse five ters of blood per minute into an adult patient; his is, of course, adequate for his total body needs. his can be varied according to the amount one may wish to use. We ordinarily perfuse with aproximately 75 cc per kilogram of body weight er minute. This again is a relatively normal flow. t is possible to maintain life and good tissue viaility with a flow as low as 30 cc. per kilogram per minute. If you reduce the body temperature to hirty-two degrees and perfuse at 30 cc. per kiloram per minute, the patient will do extremely well. It is simpler, however, to perfuse the body t a higher rate rather than to combine the two methods. The heart is excluded from the perfusion n general during this period. The cardiac muscle will tolerate such periods of hypoxia quite well if t is in arrest. It must be in complete arrest, however, and if one gets escape as one sometimes does, t is necessary to perfuse the heart again and then o stop it with a further injection of the proper material. As long as the heart is not perfused it will tend to stay in arrest until blood flow is restarted. When blood flow is again allowed to reenter the coronary arteries by removing the clamp across the root of the aorta, then the blood flow through the coronaries washes out the potassium or the acetylcholine and the heart will slowly resume its own beat. After a period of five to ten minutes it takes over on its own and the pumping effect is gradually stopped as the heart regains its tone.

It is, of course, quite apparent that these methods are still only in their beginnings. They primarily have been used in the field of congenital lesions, but they are gradually making their way into those of the acquired type. The surgeon has really one thing to offer in terms of the correction of cardiovascular defects and that is a mechanical correction of a mechanical defect. He has no magic and one must constantly recognize that the mechanical defect is only one part of the problem. This is of prime importance in the selection of patients and it is perhaps more important in the acquired diseases than it is in the congenital group where the mechanical lesion tends to have a greater importance.

MITRAL STENOSIS

Of all the acquired lesions, miral stenosis probably is the most common and certainly is the most easily and simply corrected. It is almost nine years since the first successful operation of the modern era was accomplished. Mitral stenosis again has certain characteristics of its anatomical pathologic orientation which makes it a good lesion for surgical correction. The anatomy of mitral stenosis has been known for three or four hundred years, yet the moving, living relationships were completely overlooked. When the mitral valve is involved by the rheumatic process, whatever this may be, fundamentally there occurs a fusion of the commissures. As this fusion progresses, the orifice becomes progressively narrowed. However, during this process the chordae tendineae become thickened and shortened to a highly variable degree and may indeed even fuse into columns beneath the leaflets of the valve. As this happens, there are also concomitant changes in the texture and structure of the valve itself; immediately around the orifice the valve tends to be thickened, fibrous, and indeed often calcified. This calcification tends to extend peripherally from this central point. It tends to be most pronounced along the commissural zones but it may be quite widespread. However, it spares the periphery near the annulus in the vast majority of cases. This sparing of the annular zone preserves a binge-like action of the mitral valve so that if one can re-open the commissures, the valve will tend to open and close quite well. It is true that in some patients the valve annulus becomes involved to a degree that valvular action is impaired or that the chordal effect may impair valvular effect. It was long taught that mitral stenosis in a pure form is rare and that actually there was always some insufficiency associated with it. This is not correct. There are frequently associated some minor degrees of insufficiency but it is certainly true of the majority of patients that one lesion dominates. When mitral stenosis is dominant, then benefit in general can be expected by opening the valve.

These statements are subject to considerable variation on an individual basis, but as an overall picture they are correct. The problem of recommending operation for a patient is one which has been of concern to us all. We feel at the present time that age *per se* again is not a contraindication to operation providing the general condition of the patient is otherwise satisfactory. The ideal patient of course tends to be in the younger age group, that is under fifty. Operation is not advised unless the patient has signs or symptoms which give evidence of a lesion which is progressive or has some serious prognostic implication. Cardiac failure is not a contraindication to operation, but indeed, in general, tends to be an indication for operation. Auricular fibrillation is not a contraindication to operation but its occurrence in a patient who has not previously fibrillated, tends to be evidence that this patient should have an operation. Peripheral embolization is again an indication for operation, not a contraindication to it. The patient who has no symptoms and no serious evidence of cardiac problems either by electrocardiogram or by x-ray, and who has not had auricular fibrillation and who has not had embolization and has not had evidence of failure, is not considered a candidate for operation. The overall outlook with operation is extremely encouraging. Not every patient who has mitral stenosis operated upon gets the result we would like. On the other hand, certainly eighty per cent of the patients get a relatively ideal result. The remainder are scattered from good results to a small group of approximately three to four per cent who get no improvement whatsoever because of some anatomical problem which existed at the time of operation and which made the proper correction of the lesion impossible. This small group of patients I still think will have further opportunity for improvement by direct operation in the future. On the other hand, what is the risk of operation? The risk of course is related to the stage of the disease process in which the patient presents himself. The patient whom we would term a relatively early case is the man who has had one or more bouts of failure but who is well compensated on a good medical program, who has auricular fibrillation but who has never had embolism and who has again been well controlled by digitalis, that type of patient will have an overall operative risk of about three per cent. The patient who is more advanced and who has had previous emboli, who has had several bouts of severe failure, who has concomitant renal or liver disease, his risk will be greater and will proximate ten per cent. The patient who is in intractible failure, who has an outlook of a few months, who is cyanotic at rest, will have a high operative mortality rate of approximately twenty-five per cent. But of that grou not operated upon, the overall six months mo tality rate will be about seventy per cent. This a striking improvement in the overall pictur From the surgeon's point of view, he would ju as soon never see the patient in the terminal phas of the disease because this puts upon him a grea burden and a great responsibility. Nevertheless, w have followed the policy that patients who nee help should be offered it in spite of high surgica risk in this group.

MITRAL INSUFFICIENCY

The problem of mitral insufficiency is one whic is still in the state of great change. There hav not been developed any closed methods for the correction of mitral insufficiency which are entirel satisfactory. There have now been performed perhaps a dozen cases of open operation for mitra insufficiency which have been quite successful b a direct valvuloplasty type of procedure. Minor degrees of mitral insufficiency can be corrected in a closed fashion but the patient who presents the primary problem of mitral insufficiency is a differen one. This again should be considered in the light o further developments. The procedure for closing down the annulus from the inside is one which has had only a preliminary trial, to be sure, but it offers real promise. Risk is high as yet but one must accept this at this stage of the development of the procedure.

AORTIC INSUFFICIENCY

Aortic insufficiency is another problem which has had considerable effort and thought devoted to it. Of all the valvular lesions which affect the heart, this one is the most malicious. It is preceded by a long period in which the lesion is hemodynamically significant but in which the patient may have very few symptoms. It then strikes with a swiftness which appalls the patient and the physician and the outlook for life is usually short. There are many kinds of aortic insufficiency and it is important to attempt to accurately determine the etiologic agent and the anatomic variety which exists. The classical variety is that which is associated with luetic aortitis which has long been recognized. This is a passing disease and we see very little of it in our clinic. Rheumatic type of aortic insufficiency is one which was not thought to be so common but which we now see as the minant cause of aortic insufficiency. It is strikg that it is often associated with the problem of docarditis and this brings up a distinction I ink is of fundamental importance.

There are acute and chronic forms of aortic infficiency. Sometimes there is a merging from one the other, such as the turning of a cusp in luetic sease. If one has the pure form of acute aortic infficiency, such as is associated with trauma or blast juries, the course of the disease is extremely fulinant. The average survival time is nine months less from the date of the injury and there will essentially no survivors after eighteen months. his is in striking contrast to the patient with ronic rheumatic aortic insufficiency who may ave the disease for ten to fifteen to twenty years efore he finally succumbs. This is important beause it is seen with increasing frequency that leons of endocarditis, either acute or subacute, can roduce this same picture of sudden rupture of a usp or perforation of a cusp. When a sudden hange in the patient's status does occur in this way, t is of vital importance that something be done to orrect the valvular lesion before the disease has rogressed to the point at which there is serious nyocardial damage which may not be reversible.

The real problem of aortic insufficiency is that he process is such that the patient often consults he physician late in the disease and at this point he nay have very little myocardial reserve left. When his stage has been reached one has already passed he golden period for correction of the lesion. We vould like to see the patient have correction of the esion when he first demonstrates definite signs of rogression of his lesion. We do not advise operaion at this time on the patient who has hemodynamically significant aortic disease but who is having neither signs nor symptoms which we feel are significant.

As soon, however, as he demonstrates the first evidence of failure or cardiac enlargement over the time when he was first seen, electrocardiographic evidence, or the development of anginal pains or shortness of breath, then we feel that this is the optimum time for intervention. In this group we can offer operation with striking results in terms of improvement of existing symptoms and return to good function and activity with a low mortality. In the patient who is in an advanced state of his disease and operation is done as a terminal procedure upon a patient who cannot walk across the room, who is having ten to twenty attacks of angina in a day at rest, the mortality rate would be seventy per cent. These patients are obviously not suitable for operative intervention.

We had hoped early that operation might offer these patients something and we now feel that in this terminal phase of the disease it offers them very little, but it is sometimes very difficult to refuse operation to a patient who is fully aware of his situation and who is willing to accept any kind of a risk. We have to use our best judgment in this in an effort to eliminate those patients from operation whom we feel will derive no major benefit.

The procedure which we have used most commonly has been the prosthetic plastic aortic valve. Initially this was a valve of the ball type which was made of plexiglas. This prosthesis made a considerable sound and was audible when the valve opened and closed with the beat of the heart. We were quite concerned with this in the early days because of the patients whom we had selected to have an operation at this point were all very ill people. This was all explained to them beforehand; the patients accepted this quite well. But because it continued to bother us, we worked hard to develop a valve which was silent and this has now essentially been accomplished. The valve has been changed by making the ball of a different material so that the sound is no longer a problem.

The valve is placed in the descending aorta and as such does not control all the aortic insufficiency but, because it has been an extremely safe procedure relative to the condition of the patient, we have continued to use this position although we have now developed two other types of valves which we believe will soon be available for placing in the normal aortic valvular position. However, as yet they have not stood the test of time and we are not quite as enthusiastic as we might be about approaching what would appear to be a more ideal solution. We have now operated upon approximately thirty consecutive patients with one mortality in our last group which was unselected, some very far advanced, some reasonably good risks. This is the encouraging part of this picture and I think it is primarily because we have learned something about the disease process and how to handle it rather than anything particularly different about the operative procedure as such.

ARTERIAL DISEASE

Before closing this discussion I would like to mention the most important disease of all — the problem of arterial disease, particularly arteriosclerosis. The classic concept that arteriosclerosis is a generalized disease and therefore not susceptible to local therapy is no longer entirely valid. It is important to recognize that, while arteriosclerotic problems are of a generalized nature, there are many individuals in whom the real effects of the problem are due to a localized arterial obstruction or aneurysm and this in itself may threaten life, limb or both. If one, therefore, can make the decision that a localized problem exists, it is very much worthwhile to see whether or not it can be relieved and in a large group of individuals this will be possible. This can be true in the carotid artery in the patient who has had a "stroke," in the patient who has an aneurysm of his abdominal aorta discovered incidentally at physical examination, or in the patient who comes in complaining of claudication in his legs. So that it well behooves us to re-evaluate again from the more direct point of view to determine where this obstruction begins and where, if possible, it ends. For correction of localized arterial obstruction we use almost entirely grafts which are prosthetic in character. It is our feeling that aneurysms of the abdominal aorta should be removed when they are found. Average duration of life following the development of an aneurysm which is clinically palpable, is probably about three to four years before rupture. There will be some patients in this group, however, who will of course go for many years but this will be a small group. Probably less than five per cent will go longer than seven years.

DISSECTING ANEURYSM

The other surgical emergency which falls into this group is dissecting aneurysm. Dissecting aneurysm is truly a surgical emergency and the salvag rate from this depends upon many factors, th point at which dissection begins, whether or no the dissection has penetrated to the point at whic it will rupture into the pericardium or not. Man patients with dissections will survive for lon enough periods of time to permit operation.

In correcting aortic stenosis, we now tend t do an open operation and we do it from above As you know, one can approach the coronary ar tery directly and decompress it by removal of a obstruction; this method has not been shown to b particularly feasible but certainly a great deal o work is now being done on it.

In summary, these procedures about which w have talked in many cases are in a state of chang but they are indications of the progress which w can expect in the future.

DISCUSSION

QUESTION: How long do you allow atrial fibrillation whic develops in the immediate postoperative commissurotom period to persist without attempting to convert it to sinu rhythm?

ANSWER: Usually the development of auricular fibrillatio following operation is very difficult to convert in the immediate postoperative period and we will not ordinarily mak any attempt to do this for perhaps six weeks. During thi period it is not necessary to keep the patient on anticoagulants. He has a wide open valve in which there is les stagnation than in the patient with mitral stenosis and w have not ordinarily used anticoagulants on such patients.

QUESTION: What about the aortic valve prosthesis in Marfan's syndrome?

ANSWER: Marfan's syndrome is a highly variable entity. We have done patients who have Marfan's syndrome. It has been reported in the literature that in Marfan's syndrome valves should not be attempted to be placed because they would develop an aneurysm; this is not necessarily true. We have done about three patients with Marfan's syndrome without any aneurysms forming.

CLINICAL PATHOLOGICAL CONFERENCE

Harold Jeghers, M.D., *New Brunswick, N. J.;* Mario Stefinini, M.D., *Boston, Mass.;*
Arnold Janzen, *Hartford;* and Robert R. Nesbit, M.D., *New Haven*

CASE REPORT

White; Female; Housewife; Age 35 years. Entered hospital with 10 day history of pain and tenderness of right hip and thigh, radiating down lateral aspect of leg, to foot and toe. One week before admission a physician prescribed aspirin, Tolserol and barbiturates without appreciable relief. Five days before admission, fell, bruising right lower extremity, shortly after which she could not bear weight on the foot nor completely extend right knee or hip. Extremity swelled up, "felt hot," and calf became very tender. Simultaneously noted were ecchymoses of right hip and buttock, and of right foot between 1st and second toes.

P.H.: Rheumatic fever at 4 years. Pneumonia, pleurisy and fractured vertebra in childhood. Appendectomy 1933. Benign breast tumor excision 1949.

Two years before this admission had an attack of fever, shortness of breath, and left chest pain aggravated by breathing. Entered a hospital with T—101, W.B.C.—11.5 Th. Diff.: P—70, L—28, M—2. R.B.C.—4.43 M. and Hct.—44 per cent. A diagnosis of left pleural effusion was made. Several thoracenteses of 800-1300 c.c. with removal of "port wine color fluid." Fluid did not clot. Fluid negative for tumor cells; contained 55 per cent lymphos, 13 per cent eos, 22 per cent polys, and "innumerable R.B.C." Following thoracentesis, consolidation demonstrated by x-ray. Sputum negative for Tbc and pyogens. Bronchoscopy negative. Transferred to The Sanatorium. There, remained afebrile and asymptomatic. Fluid gradually cleared with repeated thoracenteses. P.P.D. positive in 2nd strength. Gastric analyses, negative for acid fast bacilli. No parenchymal lesions demonstrated. Treated with P.A.S. and Streptomycin as a tuberculous pleurisy with a probable occult parenchymal focus not demonstrable by x-ray. After three months of treatment was given a pass for Christmas and did not return to the sanatorium but continued to go to Chest Clinic of first hospital for follow-up because of recurrent pain in right chest. Her last visit was about one month before present admission to S.R.H. At just about that time she had a "cold in her kidneys," with hematuria, dysuria and frequency. She was at this time taking up to 50 grains of aspirin per day for the residual chest pain and her renal distress. Questioning at this point revealed that she has had occasional black stools of late, without other symptoms and that her menses, previously normal, lasting five days, had started five days before admission. Bleeding was profuse from the beginning and continues very heavy. No history was obtainable of hemoptysis, hematemesis, night sweats or fatigability. It was further revealed that she had noted easy bruising for about three months previous to admission and had had a spontaneous weight loss of 17 lbs. in the past six months.

The Authors.

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P.E.: T–100; P–90; R–20; B.P.–138/68. Well developed and nourished patient lying in bed, appearing older than her stated age. Right lower extremity is flexed at hip and knee but not rotated. *Head and neck:*—negative except for slight pallor of conjunctiva. *Chest:*—old surgical scar of left breast, no demonstrable masses in either breast or axilla. Lungs clear to P & A. *Abdomen:*—scaphoid; old appendix scar; no masses; no tenderness; liver, spleen and kidneys not palpably enlarged. Upper extremities negative. *Left lower extremity* negative. *Right lower extremity* flexed and very painful to extension. Slight pitting edema and increased warmth of entire extremity; also greater in circumference at both calf and thigh. Calf tenderness is exquisite, especially deep. Tenderness also present along the course of femoral vein. Homans' sign—positive. Ecchymoses of buttock, iliac crest and a 2 cm. focus between 1st and 2nd toes. *Pelvic* deferred at first because of possible pelvic phlebitis, later revealed patient menstruating; moderate cystocele; cervix points to left and corpus retracted to right; right adnexa indurated and a mass approximately 10 cm. in diameter felt. Left adnexa—questionable small mass, freely moveable. Rectal:—extreme tenderness above level of Blumer's shelf. No lymphadenopathy demonstrable in any location. Neurological examination negative.

Laboratory findings first few days:

Urinalysis:—Negative

Blood

Glucose	94
NPN	24
Cephalin Floc.	Neg.
Thymol. Turb.	1.2 U.
Bilirubin, Direct	0
Total	0.1
Ict. Index	7.1 U.
Bromsulphalein	45′ -0%
Cholesterol, Total	266
Esters	186
Proteins, Total	7.5
Albumin	4.8
Globulin	2.7
Alk. Phosphatase	3.1 B.U.
Hemoglobin	7.5 gm.
Hematocrit	30
WBC	Thousand 13.5

Seg.	70%	Lympho.	20%
Band.	7%	Mono.	1%
Eos.	2%		

Platelets	Thousand 224
Reticulocytes	0%

Prothrombin Time, (Con. -15″) 36″

Clotting Time (L & W)

T1–13½′; T2–15′; T3–15′

Clot Retraction, Complete 1 hr.

Fragility R.B.C.

Initial	0.45%
Complete	0.32%
Coombs	Neg.
V.D.R.L.	Neg.

Stool:—Occult Blood—Strongly Positive.

X-Ray Findings: *Chest:*—Prominence of superio mediastinal shadow on right. Bilaterally increase bronchovascular markings and apical thickening No parenchymal lesions.

Bones:—Pelvis, lumbar spine, and femur negative except for some loss of lordotic carrying angle.

Course: With rest became afebrile in 36 hours, with complete subsidence of calf tenderness and negative Homans' sign by tenth day. Leg could now be extended without pain. Stools became negative for blood by ninth day and a G-I series on 10th day was negative. Prothrombin time which was 36 seconds upon admission continued abnormal.

Summary of Prothrombin Times:

ADMISSION	CONTROL 15 SEC.	PT. 36 SEC.	K. OX. MGM.	K
D-1	15	32.6		
D-2	15	31.0		
D-5	15	33.0		
D-10	15	27.0	300	
D-15	15	24.0	400	360
D-20	15	27.0	400	720
D-25	15	28.0	400	1080

On the 9th day a technologist noted that though clotting time was normal, lysis of the clot began almost as soon as the blood clotted and was complete in about 60 minutes. This phenomenon continued to pertain throughout the stay, both at room temperature and at 37° C. At 9° C. lysis started in 2½ hours and was complete in 24 hours. Further studies of the lytic phenomenon are as follows:

a) Patient clot + normal control serum at 37° & 28°—control clot lysed in 81-87 min.

b) Normal control clots lysed at 37° & 28° by patient serum—81-87 min.

c) Stored and frozen, lysis began only upon thawing and was then rapid.

d) Serum of thawed clot lysed control clot.

e) Clots of patient and controls after removal of serum, both lysed in 81 min.

Further studies showed that the clot formed during the prothrombin examination, instead of being a true clot, showed fine fibrils which underwent subsequent dissolution. A subsequent fibrinogen level was done and was found to be 88 mgm./100 ml.

Summary of Fibrinogen levels:

HOSP. DAY	MGM/100 ML.	REMARKS
17	88	500 c.c. Fresh Frozen Plasma
18	95	500 c.c. Whole Blood
21	130	3,500 c.c. Whole Blood
25	116	1,500 c.c. Whole Blood

(Normal Fibrinogen = 250-300 mgm/100 ml.)

ACTH 200 mgm. and Cortisone 300 mgm. were started daily on the theory of Splenin A. release from spleen. This was continued for 14 days without deceleration of clot lysis or alteration of prothrombin time.

On the 15th day patient complained of anorexia, chilliness, and heavy feeling in right chest. An effusion was demonstrated and 1800 c.c. of grossly bloody fluid were removed. At the same time a small supraclavicular lymph node was felt and was excised. Following this and several subsequent thoracenteses, recurrence of effusion occurred promptly and respiratory distress became increasingly pronounced. Patient failed rapidly, went into congestive heart failure and expired on the 30th day.

DISCUSSION

A most thorough and critical discussion of the case was presented by Dr. Harold Jeghers, professor and chairman of the Department of Medicine, Seton Hall College of Medicine.

In his summary, Dr. Jeghers, after logically eliminating other conditions concluded that the primary disease was a malignancy, probably a lymphoma, but possibly a primary carcinoma of the lung.

Dr. Arnold Janzen of Hartford, former chairman of the Department of Radiology, Yale University School of Medicine, discussing the radiological aspects brought out a most interesting feature, the presence of a nodular process along the course of the pulmonary vessels, but distinct from the vessels themselves. He interpreted this as being very likely a lymphatic spread of a malignancy. He also noted an enlargement of both left and right mediastinal shadows. His conclusions were also that the primary disease was some form of malignancy, either a lymphoma or a carcinoma of the lung.

Dr. Nesbit, pathologist of the Hospital of St. Raphael, presenting the pathology, showed a series of slides confirming Dr. Janzen's observation of lymphatic spread of a highly anaplastic carcinoma of the lung, which it was demonstrated was an adenocarcinoma of bronchial gland origin. A final slide of the fluid removed from the pleural cavity during the course of the patient's first hospital admission was presented. It was demonstrated that scattered tumor cells were in truth present at that time, although admittedly these were difficult of identification and "Retrospectroscopic" examination was of enormous aid in labelling them neoplastic cells.

Dr. Mario Stefinini, associate professor of medicine of Tufts University School of Medicine, discussed the fibrinolytic process which became evident during the course of the patient's illness, the substance of which is presented in detail because of its unusual occurrence and because this case was definitely proven through the efforts of Dr. Theodore Evans, chief of the hematology service of the Hospital of St. Raphael, to be a true case of fibrinolysis and only the 15th of such reported.

"Dr. Jeghers has already covered a great many of the hematological aspects of this case. I am going to summarize them very briefly and then attempt an explanation of what happened from the point of view of the bleeding disorder. We were thrown a first red herring on the second page, when it was stated the patient was taking up to fifty grains of aspirin per day. That was of course an attempt at explaining the hypoprothrombinemia on the basis of salicylate intake, but ingestion of this amount of salicylate seems to be insufficient to cause any bleeding tendency. The important finding is the lack of prolongation of the clotting time with two major abnormalities. One is a prolonged prothrombin time and the other is an extremely low fibrinogen level. You will notice that the platelet count was consistently normal. So we are dealing with a situation from a hemorrhagic viewpoint where fibrinogen is low. Of the two causes where fibrinogen may be lowered, intravascular clotting and fibrinolysis, intravascular clotting can here be excluded quite readily on two counts. The first is the normal platelet count; the second is the prothrombin time. There are two typical conditions where various types of intravascular clotting take place. These two examples are prostatic carcinoma and premature separation of the placenta. Both of them are crises of intravascular clotting with fibrinolysis appearing only as a fairly late and probably much less significant phenomenon. In these cases we have hypofibrinogenemia, a low prothrombin level and low platelet count. In these instances all of the clotting factors have decreased. On this count alone, I think intravascular clotting can be excluded in our present case. Dr. Evans and Dr. Nesbit did something which is not usually seen in reports of these cases. They went on to prove the presence of fibrinolysis. In approximately 99.8 per cent of all reports presented on fibrinolysis, the evidence for it is inconclusive, in that no attempt has been made to show what the patient's serum will do to a normal clot. On that basis for example, as you may know, Dr. Davidson and others about ten years ago published cases of hemorrhagic shock in which fibrinolysis was said to occur. This condition has been studied again with the help of radioactive technic and fluorescent antibodies and proven beyond any doubt to be not lysis but intravascular clotting. In this case, however, that fibrinolysis was present was proven beyond any doubt by the fact that the serum of the patient added to a clot from a normal control caused complete disappearance of the clot. This is true fibrinolysis and no case not proven this way should be accepted as such. As a matter of fact, fibrinolysis is a very useful diagnostic tool because there are only four conditions known today where fibrinolysis may actually be present in as severe a form as was found in this case. These four conditions are: two malignancies and two iatrogenic induced diseases. The two malignancies are: leukemia, usually acute and usually monoblastic; and carcinoma. In malignancy we usually find that we are dealing with extremely primitive, anaplastic tumors. These are the only two in which fibrinolysis has been seen. The other two conditions are transfusion reactions, and transfusion reactions not only of the ordinary hemolytic type, but also two other very rare but still very important transfusion reactions. One is the plasma transfusion reaction and the other is the buffy coat reaction. In blood banking we find a great deal of this. We find people with nephritis, nephrosis, carcinomas, severe chronic infections and the like who are given transfusions of blood and develop fever, chills and at times hemorrhagic crises. They have developed fibrinolysis. If instead of whole blood they are given red cells alone or washed red cells, they get no reaction. There are also patients who when they are given packed red cells, will still get a reaction unless the white cells and platelets are removed from the blood by differential centrifugation. Under these circumstances they have no further reaction. These are now known as buffy coat reactors and are fairly common. They represent approximately eight per cent of all true transfusion reactions seen today. The fourth condition is an obstetrical situation, one in which there is RH incompatibility and intrauterine death of the fetus. Following this, in approximately two to three weeks, unless there is spontaneous delivery, a hemorrhagic tendency may develop and here again fibrinolysis occurs. Therefore, in this particular case it would be in line with what we know today of fibrinolysis to say that disseminated malignancy of a very anaplastic type caused the condition. Do any malignancies more commonly than others produce hemorrhagic complications? Taking more or less all organs into consideration, breast carcinoma usually causes an intravascular clotting type of disaster. The same is true of the pancreas and the genital organs. Lung, prostate and kidney, on the other hand, and especially lung and kidney, are the organs in which highly anaplastic malignant metastases will very commonly cause true fibrinolysis. Therefore, on the basis of the hematological findings alone, it would be a toss up between kidney and lung. I don't believe anybody could have gone any further. I have the tremendous advantage today of talking after and not before the pathologist. And believe me, when you are used to Dr. Castleman's tricks in the line of confusing the diagnosis, this is an enormous relief.

Dr. Evans and his co-workers and Dr. Nesbit included in this report, on page five, an interesting piece of information: namely, that ACTH and cortisone were started daily on a theory of obtaining a release of hormones from the spleen. What I have to say next may sound extremely critical and therefore I will spend two minutes explaining what it means. In animals especially, it has been shown that the equilibrium between fibrinolysin, an enzyme which may be activated in blood, and its inhibitor known as anti-fibrinolysin, is under control of the spleen. It has also been shown that the spleen produces an accelerator known as Splenin A. ACTH and cortisone accelerate production of Splenin A and thereby they suppress fibrinolysis. Those of us dealing in coagulation studies and in hematology have an enormous advantage over any other clinical field. We are expected to change our minds often and we do. This was a theory that was acceptable in 1955. Today we know that ACTH and cortisone are very useful in fibrinogenopenia when fibrinogenopenia is on the basis of intravascular clotting, but of no use when it is on the basis of fibrinolysis alone. In the case of fibrinolysis one must use either plasma which contains high amounts of antifibrinolysin, or concentrated antifibrinolysin which is unfortunately not in current production. Why should ACTH and cortisone prevent intravascular clotting? We don't know. We know, however, that for example since 1954 we have not used a single unit of fibrinogen to cure or remedy the fibrinogenopenia of pregnancy or any other accident; ACTH has done exactly as well. And we believe, and again I am sure we will have to change our minds in the future, that ACTH and cortisone act primarily as antishock agents and by preventing the sudden drop in pressure which follows these accidents, may perhaps prevent intravascular clotting from occurring. I think that Drs. Evans and Nesbit have presented the fifteenth case in the literature today which is definitely proven to be due to fibrinolysis and therefore it is a case of unusual importance, and one that brings up the fact that at times from a very small hematological test one can draw fairly important hematological conclusions.

There is one last red herring in this particular report which needs explaining and that is the statement of zero per cent reticulocytes. If this is really a fact and it must be so because of other considerations, then it is difficult to understand why a patient who was bleeding quite severely as demonstrated by a severe normochromic anemia, a high white cell count with a high percentage of bands and eosinophiles, and also fairly high cholesterol and cholesterol esters levels, should on the other hand show no evidence of red cell regeneration. However, this is in line with a report that was very recently heard in Copenhagen where it was stated and proven that "fibrinolysis somehow inhibits regeneration of red cells. Presumably, when the severe anemia which results in patients with so-called 'fibrinolytic purpura' is combined with massive bleeding, actual inhibition of red cell regeneration in the bone marrow does occur."

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EDITORIALS

Reflections in Tranquillity

Through their elected representatives in the House of Delegates, the physicians of Connecticut have repudiated the "Connecticut-Integrated" contract of C.M.S. at the annual meeting last month in Stratford. C.M.S. is a nonprofit organization. Yet in nine years of existence it has become a corporation with assets of more than $7,500,000.00. Its leaders portray physicians as engrossed in the practice of medicine, too dull for the most part to understand the "demands of labor" and the "imminence of socialization". They demand, in turn, faith and confidence in their administration, are annoyed and react with well recognized techniques when their stewardship is questioned.

After disclosures of insincerity, misrepresentations, behind the scenes maneuvering and arrogance on the part of C.M.S., the physicians of the State have demonstrated widespread lack of confidence in the leaders of this plan. The Connecticut Society of American Board Surgeons, meeting in April, overwhelmingly opposed the new contract, and sentiment among obstetricians, internists, urologists, dermatologists and nose and throat specialists is known to be similar.

It should be noted that with more than 200 men in the State qualified by the American Board of Surgery, C.M.S. has never had a qualified surgeon on its board of directors and in the past year only one such qualified man has been placed on the professional policy committee.

Loyal Davis, editor of Surgery, Gynecology and Obstetrics, has stated that the relations between doctor and patient are irreparably damaged when an insurance carrier pays the doctor directly. In a subtle way the doctor is placed in the category of an agent of the insurance company. If an occasional patient pockets the money, at least the doctor knows that what is due him for his services will not be spent on advertisements in the public press, impugning his motives and integrity.

There is evidence that the glib conversationalist and mesmerizing statistician have lost some of their potency in the world today. Even the busy doctor senses that men will not continue to recoil before labor's "demands", and that the corollary to this reaction, inflation, cannot go on forever. When the dust has settled, in good times or in times of stress, long after this controversy with C.M.S. is a forgotten issue, people will seek the physician's services and he will continue to reap his real satisfactions in the care of those who need him.

The Gift Of Sleep

"Bring us to our resting beds weary and content and undishonored and grant us in the end the gift of sleep."

PRAYER AT MORNING. *Robert Louis Stevenson*

There is no doubt that insufficient sleep has a deleterious effect on both the well and the sick. As to those who are presumably well, note the frequent reports of autoists who from exhaustion due to nadequate sleep drowse at the wheel and frequently injure or kill themselves and sometimes ompanions, pedestrians, or occupants of other cars. t is well known that normal individuals vary videly in the amount of sleep they need to main-ain good health and also in their ability to fall sleep. Doubtless this is in part an occupational natter for physical exertion is more tiring than nental effort and a lumberjack should need more repose than a desk worker. However, there are curious individual differences. The French lexicographer Littré is said to have maintained good health on four hours sleep out of the twenty-four, and many individuals require eight hours sleep or even more. There are curious superstitions about sleep, notably one that the sleeper should face toward a church or face south. According to the Radfords* a group of British physicians investigated this and the majority agreed that the most restful position was to lie facing south. There is no scientific proof that certain popular ideas about the amount of sleep needed by that mythical being the average individual are correct, for example, the belief that the old require less sleep than the young and that eight hours is the median requirement.

There is no question that the ability of normal people to fall asleep varies considerably. Some can do so quickly, others have difficulty in getting to sleep. F. Curtius in his discussion of Constitution† states that accurate knowledge concerning the physiology of sleep is lacking. There have been studies of the effect of sleep on metabolism and even photographic studies of sleepers but the whole story is not yet known.

From the practical standpoint it is important that the practitioner should endeavor to determine the causes of insomnia. It is known that Graves' disease and cardiac disease with dyspnea often cause it. No doubt the indiscriminate use of thyroid extract may also do so. Certain bad habits such as the overuse of coffee or caffein-containing drinks, irritating conditions which may accompany work, card playing at competitive games late in the evening, and psychic problems may any of them cause poor sleep in some individuals. An hereditary factor has been suggested as operative in some patients. The whole subject is worthy of more extended study, particularly as the common treatment of insomnia often involves the use of drugs which may be habit forming and deleterious in their side reactions.

G. B.

LETTERS TO THE EDITOR

Hormone Therapy of Breast Cancer

Yale University School of Medicine
333 Cedar Street
New Haven 11, Connecticut

April 24, 1958

To the Editor:

We should like to use the medium of the Connecticut State Medical Journal to express our thanks to the physicians of Connecticut who have aided the study now being conducted at Yale to evaluate hormone therapy of female breast cancer. As you no doubt remember this study is sponsored by the Cancer Chemotherapy National Service Center of the National Cancer Institute as part of a nationwide program among some twenty-five cooperating institutions to find new and better hormones to treat metastatic breast cancer, in an effort to avoid the necessity for ablative surgery.

The Connecticut study is the largest of all those in the program due to the generous referral of clinical material by cooperating physicians. Over sixty patients have thus far been referred from every part of the State. The present communication is intended as an interim report to the referring physicians as the first phase of the projected ten year study draws to a close. During the initial part of the study a promising halogenated progesterone has had a thorough clinical trial in a statistically valid environment. It has been compared to the best present hormone therapy, testosterone propionate, and has demonstrated its worth as another hormone in the therapy of this disease.

Preliminary evaluation has been consistent with results as good as those obtained using testosterone, but of even greater importance has been its favorable effect in those patients who have become refractory to other hormones. Objective improvement has been noted in one third of such patients included in the present study.

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*Encyclopaedia of Superstitions. E. and A. Radford. The Philosophical Library, Inc., New York, 1949.

†F. Curtius. Handbuch der Inneren Medizin. Bergman, Frey, und Schwieck. 1954, Vol. 6, part 1, p. 296.

The criteria for improvement in our protocol have been extremely rigid of necessity. For example, subjective improvement alone has classified such a patient as a failure. No one can dispute, however, that such a response is indeed valuable when one is dealing with a terminal cancer patient as were many in our group.

The study will continue using other new hormone preparations and the continued cooperation of Connecticut physicians is earnestly requested. It has been possible through this endeavor to evaluate in less than a year of clinical trial more valid information than could probably be gathered by any one small group of investigators working in one institution in ten years.

In closing we should like again to say "thanks to all" who have helped in this project. More specific details of the present portion of the study will be published in the near future and reprinted reports will be sent to all physicians who have contributed so ably to the study.

Mark A. Hayes, M.D.
Ira S. Goldenberg, M.D.

The C.M.S. Controversy

May 12, 1958

To the Editor of the
Connecticut State Medical Journal

Dear Sir:

On April 29, 1958 in Stratford, Connecticut the House of Delegates of the Connecticut State Medical Society reaffirmed, by an overwhelming vote, the democratic principles on which this country is founded and which all free men love. Were it not for this fact, it is doubtful that a letter of this nature would see print in the Journal.

Being merely one of the rank and file of private practitioners of medicine in Connecticut, I do not have the resources of a multimillion dollar ($7,543,345.06 to be exact) corporation and cannot, therefore, send approximately thirty-three pages of specially printed material (at a cost of nine cents for postage) to each of the more than three thousand physicians in Connecticut. For that matter, neither can I afford to pay for five-column advertisements in the leading papers of the State and therefore I feel extremely grateful for the privilege of being able to express my views here so that those of my colleagues who choose may read them.

Connecticut Medical Service Incorporated uses the phrase "Sponsored By The Connecticut State Medical Society" on all of its official releases, so far as I know. It also uses the statement "Only C.M.S. Can Guarantee Service Benefits." The Connecticut State Medical Society has adopted specific resolutions which disapprove the new Connecticut Integrated Contract and request that it be immediately and permanently withdrawn. The Society has further stipulated that any proposed new contract or changes in existing contracts be presented to every component county association and to the House of Delegates for approval before it is submitted to the Insurance Commissioner. Despite these resolutions, at the time of writing, C.M.S. seems intent on pursuing its wishes regarding the "Integrated" contract regardless of the Connecticut State Medical Society. I sincerely hope that this proves not to be the case, but if it does, the Connecticut State Medical Society may be forced to withdraw its sponsorship of C.M.S. After all, if C.M.S. is the doctor's plan as it implies, (and it is common knowledge that the physicians of this state gave it its being) it would heed the wishes of organized medicine in Connecticut. The principles involved in this issue are not mercenary ones, as has been implied by some, but are clear cut and easily understood. Any plan that, either now or in the future, potentially places up to ninety per cent of a physician's patients on a rigid fixed fee schedule and denies him the right of showing his disapproval of the plan by resigning under the threat of the punitive measure of implying to his patients that he is overcharging them (and thus threatens him with the loss of all but ten per cent of his practice) should be reprehensible to every physician in a free country. Furthermore, having a committee of a private corporation which seems to feel it is autonomous from organized medicine in Connecticut decide when medical care is "necessary" and fees are "reasonable" should be equally repugnant. This is particularly true when there is no recourse from such decisions. Finally, it was never the intention of the physicians of this State that the non-profit plan they founded to aid people of low income should attempt to compete with some tax paying insurance companies while joining with nother profit making company in selling their ervices on the slogan that only it can guarantee ervice benefits.

If these things are allowed to come to pass it vill put an end to the democratic rights of physiians to regulate their own practices in this State. As a member of one of the original committees hat investigated the development of this plan I night say, in passing, that it was never properly ubmitted in complete detail or final form to the ank and file of practicing physicians in Connectiut and moreover that its whole background is a issue of chicanery and deceit too subtle and complex to be outlined here but none the less very real. The physicians of Connecticut should keep irmly in mind the fact that no corporation can sell their medical services to patients unless they wish to allow it to do so. Physicians are notoriously disorganized because they are highly individualistic, and more important, because most of their time is devoted to the care of their patients. The forces that would destroy the free practice of medicine in Connecticut are aware of these frailties but when it comes to the fundamental issue of preserving the liberty that our forefathers fought for I feel that my colleagues will recognize the true issue involved and be strong and united.

If the Connecticut State Medical Society finds itself forced to withdraw its sponsorship from C.M.S., in favor of some plan more in the interest of both the public and the medical profession, every physician in Connecticut should cease to be a participating physician in any of the C.M.S. plans. This would work no hardship on the public since C.M.S. would be obligated to pay the same amount it now pays in all cases except that it would pay the patient directly rather than the physician. If the physician felt the patient was in the true "service" category, he could accept the same amount from the patient that C.M.S. allowed the patient as full payment.

If there were no C.M.S. participating doctors in the State, C.M.S. could take no punitive measures against the nonparticipating physician since the implications on the patient's voucher that the fee would have been accepted as full payment by a participating physician would not obtain, there being none.

The only effect of the above measures would be that, so far as C.M.S. is concerned, it could no longer advertise that it was sponsored by the Connecticut State Medical Society nor could it claim that only it could guarantee service benefits in order to compete with tax paying insurance companies. Indeed, if this situation came to pass there would be no service benefits, for practical purposes, and C.M.S. could not advertise a service it was not able to supply.

This is not merely a local issue. What we do in Connecticut is being watched across the country and may well decide the fate of the private practice of medicine in the United States both now and for posterity. Let the physicians of this State keep the fundamental issues clearly in mind and not be deluded by weighted statistics, side issues and veiled threats which attempt to pit doctor against doctor so that all may be beguiled into selling their birthright for a "mess of pottage", as the saying has it.

It is fitting that one of the original colonies of 1776 should again be a bulwark of freedom in 1958. Let the physicians of Connecticut realize once more that there is strength in union and may they use that strength to disavow any plan which purports to regiment the medical profession on the plea that it is in the public interest, for such is not the case. In every country where such plans have been introduced they have served only to lower the quality of medical care and have been disadvantageous to both the public and the profession. Let us be vigilant that such a situation is not allowed to arise in Connecticut.

It seems obvious that every physician in Connecticut who wishes to protect his own rights and those of the public, will refrain from entering into any new agreement with C.M.S. That is, until the House of Delegates of the Connecticut State Medical Society has had sufficient time to ascertain whether the ultimate intention of C.M.S. is to flout its wishes and has taken official action thereon.

It seems unnecessary to point out that the Connecticut State Medical Society is not interested in the insurance business per se but was founded in 1792 "so that the profession shall become increasingly useful to the public."

Respectfully yours,

John Henry Grossman, M.D.
Bridgeport, Conn.

PROGRESS IN CLINICAL MEDICINE

THE LOW VISION PATIENT

Carlton C. Phillips, m.d., *New Have*

This is the sixth of a series of papers to acquaint medical colleagues of ophthalmologists with recen advances in the care of the eyes. These discussions should be of interest to the profession as a whol They are intended to be brief and are written in such a manner as to be understood by the genera practitioner, pediatrician, internist, surgeon or psychiatrist. Many of these are problems which th medical doctor must try to consider in formal or informal consultation for patients and often for members of his own family.

The Author. *Clinical Instructor in Ophthalmology, Yale University School of Medicine; Assistant Attending Ophthalmologist, Grace-New Haven Hospital*

SUMMARY

Many persons with subnormal vision can b helped to do specific tasks with optical devices These have disadvantages but often open ne possibilities and pleasures. Awareness of th possibility of aid by physicians for this grou is the first step.

There are many causes for poor central vision. Central or macular area vision is used for reading and all fine work. Any opacification of the cornea, any clouding in the lens, pieces of debris in the vitreous, degeneration of the macular area or perceptial difficulty in the brain can lead to poor visual acuity as measured on the Snellen chart. No matter what the cause for the poor acuity, it may be helped by enlargement of the blurred image.

Telescopic devices are available if the patient desires or needs better visual acuity in the distance. These are useful for looking at blackboards, television and movies. Telescopes make objects recognizable through magnification. There are very few patients who can learn to walk about with them since the field of vision is decreased as the magnification is increased. In addition, movement of the image is proportional to the magnification and is thus greater than the actual movement. Another disturbing factor is false localization. The enlarged object appears closer than it actually is, resulting in confusion in maneuvering about. Wearing telescopes is like constantly looking through a narrow diameter tube. It tends to cause vertigo. Telescopic devices are useful only if the patient and image remain in one place.

Other distance devices include contact lenses used when patients have corneal opacities, high astigmatism, high myopia and high hyperopia. When indicated and successfully fitted these give excellent results with no limitation of visual fields. A pinhole is well known to increase visual acuity in persons with hazy cornea, lens or vitreous. Multiple pinhole lenses of one millimeter are often recommended but have limited usage because of restricted ligh admission.

Near vision aids are also available. An ordinar strong convex lens of the type purchased in an variety store is often worthwhile. These give a magnification dependent on their dioptric power divided by four, a plus 10 lens giving 10/4 or 2½ × magnification. Magnification may also be increase by simply bringing the object closer to the eye. Thi enables some individuals who have very poor distance vision to read print in normal books. Telescopic lenses for the distance can be used for reading by adding strong convex lenses to the front o them. The stronger the convex or plus lens added the greater becomes the near magnification.

The greatest disadvantage of strong convex lense is that reading matter must be held very close to the eyes. This limits binocular vision and is extremel annoying to the reader. The stronger lenses are only useful for one eye at a time. Binocularity may be obtained with telescopes fitted with reading caps. This allows a more normal position of reading matter with both eyes being used.

There are various combinations of lenses and appliances which can and are used to make it possible for a low sighted person to read, to sew, to watch television and movies. None of these are perfect, most are expensive, and all have one specific purpose. This necessitates more than one device for each person.

The matter of expense is a major consideration. Telescopes and microscopic bifocals may cost up to $100. There are smaller pocket telescopes available which sell from $2.00 to $20.00. This is more in line with what most patients are willing and able to pay. An ordinary linen tester or hand magnifier may solve the problem as well as a more expensive magnifier. The cost of the device does not necessarily increase its usefulness, a bicycle often doing as well as a Cadillac.

It should be obvious that before a referral is made to a low vision clinic a thorough medical and ophthalmologic work-up be done. Everything possible should be done to provide the simplest means of correction for low vision. Probably the best visual device is a good refraction. There are many medical conditions such as diabetes, hypertension and other vascular diseases which, if corrected, may eliminate the need for any appliance. Any low vision aid has disadvantages over the ordinary eyeglass correction, but it would be unfortunate to deny reading, viewing school blackboards or television to many low sighted persons.

Doctors And Reporters Get Together

A two day program in Syracuse, N. Y., in April covered every conceivable angle of medical news reporting. It was there that the A.M.A., in cooperation with the National Association of Science Writers, held its first regional workshop on covering medical and scientific news.

The meeting, which consisted primarily of panel discussions of various problems, was highly successful. On the first day, the total attendance was 75, but this figure dropped the second day because many of the writers could not take two full days, plus travel time, away from their jobs.

The workshop was aimed at helping to meet the increasing demand for science coverage by developing better medical and general science reporting at the local level. A similar meeting was scheduled to be held in Cincinnati, May 22. After that session, the two meetings will be evaluated, and, if the results are encouraging, three additional meetings will be held in different areas of the United States after the A.M.A. June convention.

Reporters and medical people were evenly divided on the Syracuse program, with Mrs. Cathy Covert of the Syracuse Herald-Journal and Dr. Robert J. Collins, president of the Onondaga County Medical Society, serving as co-chairmen.

List of Medical, Food and Sanitation Items Essential for Survival

(Published February 7, 1958, by Office of Defense Mobilization; developed for ODM by a special committee representing Departments of Agriculture, Commerce, Defense, Health-Education-Welfare and Interior, also Bureau of Budget, Federal Civil Defense Administration, Housing and Home Finance Agency and ODM. "Survival" items are defined as those which would be required, following nuclear attack, to sustain life at a productive level and without which over a period of time great numbers of people might die or have their health so seriously impaired as to imperil the national survival effort.)

HEALTH SUPPLIES AND EQUIPMENT

Pharmaceuticals—Acetylsalicylic acid, atrophine sulfate tablets and injections, synthetic plasma volume expanders, digitalis and derivatives, oxygen, surgical detergents, lubricant (surgical), insulin, blood derivatives for shock therapy, water for injections, surgical antiseptics, antibiotics, barbiturates, sulfa drugs, cardiac and respiratory stimulants, oral electrolytes, local anesthetics, intravenous solutions for replacement therapy, morphine and substitutes, general anesthetics, alcohol.

Blood Collection and Dispensing Supplies—Blood donor set, disposable, field; blood recipient set, disposable, field; blood collecting and dispensing containers; tube, blood collecting, vacuum; intravenous injection sets, blood grouping and typing sera.

Biologicals—Tetanus antitoxin, smallpox vaccine, gas gangrene antitoxin, yellow fever vaccine, diphtheria antitoxin, diphtheria and tetanus toxoids and pertussis vaccine, cholera vaccine, plague vaccine, rabies vaccine, antirabies serum, botulism antitoxin (Type A & B), tetanus and diphtheria toxoid, typhoid and paratyphoid vaccine, tetanus toxoid (A.P.), typhus (epidemic) vaccine.

Surgical Textiles—Bandage (gauze and muslin), cotton (USP), compresses (including burn dressings), bandage (plaster of paris), cellulose (absorbent), first aid dressings, absorbent gauze, surgical mask and cap, gauze (packing abdominal), sanitary pads, abdominal pads, adhesive plaster, gauze pads, stockinette (surgical), cotton sheet wadding, white cotton gloves for burns.

Emergency Surgical Instruments and Supplies—Tracheostomy set, hypodermic needles, forceps (hemostat), forceps (tissue), forceps (dressing), holder (needle), surgical knife blades, surgical knife handles, general operating probe, bandage scissors, general surgical scissors, absorbable and nonabsorbable sutures, general operating retractor set, syringes (hypodermic Luer), Thomas leg splint, bone saw, rongeur, razor and blades for surgical preparation, surgical drape (plastic), surgical apron (plastic), cast cutting knife, rubber or plastic airway, penrose drain, duodenal tube, wire ladder splint, textile webbing, instrument tray, nonpneumatic tourniquet, urethral catheters, surgical rubber gloves, surgical needles, ether mask (inhaler Yankauer), stethoscope, obstetrical forceps, clinical thermometers, rubber or plastic tubing and connections.

Common Use Items—Surgical scrub brush, textile webbing splint buckle, litter, portable light source for surgery.

FOOD GROUPS

Milk Group—Milk in all forms; milk products. Important for calcium, riboflavin, protein and other nutrients.

Meat Group—Meet, poultry, fish, eggs; also dry beans, peas, nuts. Important for protein, iron and B-vitamins.

Vegetable-Fruit Group—Dark green and yellow vegetables for vitamin A; citrus fruit or other fruit or vegetables for vitamin C; other fruits and vegetables, including potatoes.

Grain Products — Particularly enriched and restored whole grain cereals, bread, flours and meals; important for energy, protein, iron and B-vitamins.

Fats and Oils—Including butter, lard and margarine. Important for food energy; same for vitamin A and essential fatty acids. *Sugars and Syrups*—Food energy.

SANITATION AND WATER SUPPLY ITEMS

General Items—Trucks, up to 5 tons (25 per cent to be equipped with power takeoffs); truck tractors and trailers, including low bed; bulldozers; rigging tools (cable, rope, tackle, hoists, etc.); protective masks, clothing, helmets; selfreading dosimeters with chargers; low range survey meter; high range survey meter; dose rate and total dose calculators; warning signs (chemical, biological, radiological), high-sensitivity laboratory type equipment for counting, chemical agent detection kits (air, food, water).

Water Supply Material—Filter alum, ferric chloride, ferrous sulfate, chlorinated copperas, soda ash, hydrated lime, pulverized limestone; liquid chlorine and containers, high-test hypochlorites (70 per cent) (in drums, cans, ampules), chlorinated lime, iodine tablets (for individuals); diatomaceous earth, activated carbon.

General Supplies and Equipment—Pumps (hand, electric, gasoline, diesel) with appurtenances; chlorinators (gas and hypochlorite); mobile and portable pressure filters; welding equipment and supplies (electric and acetylene); well drilling equipment, including well tubing and well points; chemical feeders.

Storage and Transport Equipment—Tank trucks and trailers; tank railway cars; storage tanks (rigid, transportable); storage tanks (collapsible, portable); lyster bags.

Laboratory Equipment and Supplies — Ortho-Tolodine-Arsenite chlorine comparators with pH disc and reagents; membrane filter kits with filters and media.

Insect and Rodent Control—Insecticides: DDT technical grade powder and emulsifiable concentrate for spraying operations; DDT (10 per cent dust) as delousing powder; malathrion; solvents and emulsifying agents. Rodenticides: Anticoagulant type. Equipment: Hand dusters, plunger type; hand sprayers; compression sprayers; delousing outfit; aircraft spraying equipment.

Note: Three other categories were included in the survival item list released on February 7, 1958, by Office of Defense Mobilization: Body Protection and Household Operations, Light, Power and Fuels, and Emergency Housing and Lodging.

THE SECRETARY'S OFFICE

WILLIAM R. RICHARDS, M.D.
CREIGHTON BARKER, M.D.
JAMES G. BURCH
Director of Public Relations
JOSEPHINE P. LINDQUIST
Administrative Assistant
160 ST RONAN STREET, NEW HAVEN
Telephone: UN 5-0587

The new Executive Secretary wishes to express to the House of Delegates and to all members of the Society his sincere appreciation for the honor of his election to serve in this office. He begs their indulgence and reasonable patience during the period of his indoctrination.

Sincerely
WILLIAM R. RICHARDS, M.D.

Council Meeting

Wednesday, April 16, 1958

A regular monthly meeting of the Council was held at the offices of the Society on April 16, 1958 and was called to order by the Chairman, Dr. Gallivan, at 4:45 in the afternoon. There were present in addition to the Chairman, Doctors Walker, Russell, Barker, Feeney, Ogden, Gens, Clarke, Buckley, Israel E. Blodinger, newly elected Councilor from New Haven County, Doctors Archambault, Schiavetti, Maxon H. Eddy, newly elected Alternate Councilor from Fairfield County, and Doctors Seigle and Gardner. Christopher E. Dwyer, formerly Alternate Councilor from New Haven County, was also present but withdrew from the meeting when the seating of the newly elected Councilor and Alternate Councilor from New Haven County was confirmed. Absent were Doctors Johnson, Weld, Danaher, Gibson, Ursone, Ottenheimer, Meyers, Samuel B. Rentsch, newly elected Alternate Councilor from New Haven County, and Doctors Starr, Thayer and Gilman.

RESIGNATION OF THOMAS J. DANAHER AS DELEGATE TO A.M.A.

The resignation of Thomas J. Danaher as delegate to the American Medical Association was accepted with deep regret and the Secretary was instructed to communicate this action to Dr. Danaher.

NOMINATION OF GRAY CARTER AS DELEGATE TO A.M.A.

The Nominating Committee which met immediately prior to the meeting of the Council presented unanimous nomination of Gray Carter, Greenwich, to be a delegate from the Society to the American Medical Association for the unexpired term of Dr. Danaher which terminates December 31, 1959. The Council approved this nomination unanimously and it will be presented to the House of Delegate for action at the annual meeting on April 29th.

EDWIN F. TRAUTMAN TO MEDICARE COMMITTEE

The Nominating Committee proposed and the Council approved the appointment of Dr. Edwin F. Trautman, Trumbull to be a member of the MEDICARE Committee to replace Richard B. Elgosin, resigned.

RALPH T. OGDEN TO COUNCIL OF NEW ENGLAND STATE MEDICAL SOCIETIES

The Nominating Committee proposed and the Council approved the appointment of Ralph T. Ogden, Hartford to be a delegate from the Society to the Council of New England State Medical Societies to replace William H. Horton, resigned. The Secretary was instructed to write Dr. Horton that his withdrawal as delegate to the Council be accepted with regret.

MARTHA L. CLIFFORD TO SUB-COMMITTEE ON NUTRITION

The Nominating Committee proposed and the Council approved the appointment of Martha L. Clifford to be a member of the Subcommittee on Nutrition of the Public Health Committee.

DUES TO CONFERENCE OF PRESIDENTS AND OTHER OFFICERS OF STATE MEDICAL ASSOCIATIONS

The Secretary presented a communication from Mr. James Waggener, Secretary of the Conference of Presidents and Other Officers of State Medical Associations correcting an error in the amount of dues for the Society for the year 1958. The original billing was for $50, payment of which was approved by the Council on January 8th. The correct amount should have been $75 and the Council authorized this additional $25 be paid.

REVISION OF STANDARDS AND RECOMMENDATIONS FOR THE HOSPITAL CARE OF MATERNITY PATIENTS

Because of the absence of Dr. Johnson no report was presented and the item was postponed until the next meeting of the Council.

SEATING NEWLY ELECTED COUNCILORS

The Chairman, Dr. Gallivan, explained that it had been a long established custom from before anyone's memory that newly elected County Councilors and Alternate Councilors become members of the Council at the annual organizational meeting of the Council which is the first meeting following the annual meeting of the House of Delegates. There is no provision in the State Society By-laws for this procedure although it is in the By-laws of the New London County Medical Association and the Windham County Medical Association. Other county by-laws have previously contained this provision; but most of them currently are not specific as to when newly elected councilors take office. Letters have been received from the President of the Fairfield County Association and Secretary of the New Haven County Association stating that the newly elected Councilors and Alternate Councilors from those counties should become members of the Council at the present meeting replacing the former Councilors and Alternate Councilors. These letters are a part of these minutes. Therefore, Israel E. Blodinger, newly elected Councilor from New Haven County and Samuel B. Rentsch, Alternate Councilor from New Haven County (absent) and John P. Gen formerly Alternate Councilor but recently elected Councilor from Fairfield County and Maxon H. Eddy, newly elected Alternate Councilor from Fairfield County were seated. At this point Christopher E. Dwyer, formerly Alternate Councilor from New Haven who was present, withdrew from the meeting.

As a result of this discussion it was voted that the Secretary be instructed to write to the secretaries of the eight county associations informing them of the discrepancies among the several county association by-laws relating to the seating of newly elected Councilors and Alternate Councilors.

COMMITTEE ON AGING

The Secretary presented a request from the Committee on Aging of the American Medical Association that this Society appoint a Committee on Aging as is being asked of all state societies. It was voted that the Chairman of the Council, in consultation with the Executive Secretary, appoint a special committee of five members of the Society to explore this proposal and make recommendations to the Council at its next meeting as to the makeup of such a committee. (Chairman—John P. Gens, John P. Bachman, Harry L. F. Locke, James R. Miller, Samuel B. Rentsch.)

NOMINATION FOR C.E.A. WINSLOW AWARD

An invitation from the Connecticut Public Health Association for the Society to nominate a candidate for the 1958 C.E.A. Winslow Award "in recognition of an outstanding contribution in the field of Public Health". It was voted that Alfred L. Burgdorf, Hartford be nominated for consideration as a recipient of this award and the Secretary was instructed to complete the official form on behalf of the Society and return it to the Chairman of the Winslow Award Committee.

STUDENT MEMBER ELECTED

George Robert Cronan, Jr., Waterbury, Tufts University School of Medicine, Class of 1961, was elected a student member of the Society.

PRESIDENT'S COMMITTEE ON CONNECTICUT MEDICAL SERVICE

Dr. Walker and Dr. Gallivan reported on the conference that was held by the Committee appointed by the President in compliance with a vote passed at the special meeting of the House of Delegates on March 25th. The Committee appointed by the President consists of the following:

Fairfield County—Payson B. Ayers, Cos Cob; Michael A. Dean, Bridgeport; John G. Ogilvie, Stamford; Edwin F. Trautman, Trumbull.

Hartford County—Bliss B. Clark, New Britain; Robert R. Keeney, Manchester; Donald J. McCrann, Hartford; Ralph T. Ogden, Hartford.

Litchfield County—Victor P. Conforti, Torrington.

Middlesex County—Norman H. Gardner, East Hampton.

New Haven County—Orpheus J. Bizzozero, Waterbury; Michael J. Conroy, Meriden; Clyde L. Deming, New Haven; Carl E. Johnson, New Haven.

New London County—Clifford E. Wilson, Norwich.

Tolland County—R. Bruce Thayer, Jr., Hazardville.

Windham County—Frederick A. Beardsley, Willimantic.

COMMITTEE TO CONFER WITH THE STATE COMMISSIONER OF FOOD AND DRUGS

Dr. Gardner, Chairman of the special committee appointed by the Chairman of the Council to confer with the State Commissioner of Food and Drugs, (other members of the Committee are Ralph L. Gilman and Royal A. Meyers) in regard to a communication from the Commissioner relating to the illegal dispensing of drugs by physicians, reported that he had had some difficulty in arranging a conference of all members of the Committee with the Commission but that he had met with Mr. Plank of the Commissioner's staff. He outlined illegal procedures practiced by some physicians in permitting their office nurses, and on one occasion a wife, to authorize the refilling of prescriptions for restricted drugs. General discussion was entered into and it was voted that Dr. Gardner inform the Commissioner that if he would prepare a statement in this connection pointing out law violations in such practice it would be published in the State Medical Journal and to ask him to also prepare a letter on that subject that after approval by the Council's special committee would be mailed to all members of the Society from the Secretary's office. The letter to be signed by the President of the Society.

EXPRESSION OF GRATITUDE TO RETIRING MEMBERS OF THE COUNCIL

On motion made by Dr. Gens and voted, the Chairman of the Council was directed to communicate with recently retired members of the Council expressing the Council's gratitude for their services as members of the Council.

ANNUAL MEETING OF THE COUNCIL

It was voted that the annual organizational meeting of the Council be held on Wednesday, May 21st.

The meeting adjourned at 7:15 P.M. following which a number of members of the Council dined together at the New Haven Lawn Club.

Council Meeting

Tuesday, May 6, 1958

A meeting of the Council was called by the Executive Secretary in accordance with the By-laws of the Society on petition of six members of the Council on Tuesday, May 6, 1958. The meeting was called to order at 4:30 in the afternoon by the President of the Society, Dr. Walter I. Russell. There were present in addition to the President, octors Weise, Polito, Richards, Monahan, Carter, allivan, Weld, Feeney, Scully, Davis, Gens, Buck- ey, Blodinger, Archambault, Ottenheimer, Eddy, rendon, Gardner, Rentsch. Absent were Doctors larke, Kennedy, Schiavetti, Seigle, Starr, Thayer nd Gilman. Dr. Clyde L. Deming, First Vice-resident and Dr. E. Tremain Bradley, Chairman f the Committee on Public Relations, were also nvited to attend this meeting. It was voted that hey be invited to join the meeting after the organ- zational business was concluded.

URPOSE FOR MEETING

The purpose for this call to meeting was to consider the propriety of certain public statements reportedly made on May 2, 1958 by the President of the Society, Dr. Walter I. Russell.

ELECTION OF CHAIRMAN

Since the By-laws of the Society state that the first meeting following the annual meeting of the House of Delegates shall be for the purpose of organization and election of a Chairman, Dr. Russell asked for nominations for Chairman of the Council. Nominations were received as follows: Dr. Gallivan, Dr. Gardner, Dr. Buckley, and Dr. Feeney. Doctors Gallivan, Gardner and Buckley declined with thanks. The motion to close the nominations was passed. Dr. Feeney was then elected unanimously by a voice vote. After election Dr. Feeney assumed the Chair and Dr. Russell withdrew from the meeting.

ACTION ON PURPOSE FOR MEETING

The public statements reportedly made by Dr. Russell on May 2, 1958 were read verbatim by Dr. Davis from the New Haven Journal Courier (AP release) dateline Hartford, Connecticut, May 3, 1958. By general agreement, the discussion was confined to such controversial public statements in general rather than to those specifically attributed to Dr. Russell. These matters were considered as to their possible undesirable effects on (1) public relations; (2) future negotiations with Connecticut Medical Service, Inc.; and (3) keeping clear in the minds of all concerned the policies and viewpoints of the Society officially expressed by the House of Delegates at the meeting of April 29, 1958.

After thorough discussion, the following amended news release introduced by Dr. Davis for distribution to all news media was voted on and passed:—

"The Council of the Connecticut State Medical Society is empowered to conduct the business of the Society between meetings of the House of Delegates. Acting in this capacity, the Council desires to make the following official public statement:

1. The Connecticut State Medical Society wholeheartedly endorses and supports the principle of prepayment for physicians services.
2. The Society believes that this principle could most conveniently be continued in practice for the citizens of Connecticut by Connecticut Medical Service, Inc.
3. Despite the fact that the Society has disapproved the new Connecticut (Integrated) Contract offered by Connecticut Medical Service, Inc., the Society continues to approve the Standard and Preferred Contracts.
4. The Council believes that discussions should be continued between the Council and the Board of Directors of Connecticut Medical Service, Inc., for the purpose of resolving present differences of opinion in a manner which shall best serve the needs of the citizens of Connecticut, Connecticut Medical Service, and the Connecticut State Medical Society.
5. The Council deplores the unauthorized issuance of controversial statements, since such statements tend to increase the difficulties normally encountered by reasonable men who are seriously and soberly endeavoring to harmonize divergent viewpoints."

PRESIDENT'S COMMITTEE ON CONNECTICUT MEDICAL SERVICE

A motion requesting the present President of the Society to dismiss the President's Committee on Connecticut Medical Service appointed by the President by vote of the House of Delegates at its special meeting in Hartford on March 25, 1958 was discussed but no action taken.

EXPRESSION OF GRATITUDE TO RETIRING MEMBERS OF THE COUNCIL

Dr. Gallivan, former Chairman of the Council, requested Dr. Feeney to write recently retired members of the Council, expressing the Council's gratitude for their services as voted at the Council meeting on April 16th.

SUB-COMMITTEES OF COUNCIL

A motion was made by Dr. Gens that because recent and extensive changes had occurred in makeup of sub-committees that these sub-committees be dissolved with a view of appointing new sub-committees. The motion was lost. The Executive Secretary was instructed to present rosters on subcommittees as now constituted at the Council meeting of May 21st for review and replacements as necessary.

DAVIS MOTION ON INVITATION TO C.M.S. TO MEET WITH THE COUNCIL

Dr. Davis presented the following motion which was passed after discussion:—

"It is moved: That the Executive Secretary of the Connecticut State Medical Society communicate with the Board of Directors of Connecticut Medical Service, Inc., for the purpose of arranging, as soon as possible, a joint meeting of the Council of the Connecticut State Medical Society and the Board of Directors of Connecticut Medical Service, Inc."

INVITATION FROM C.M.S. TO CHAIRMAN OF THE COUNCIL

The Executive Secretary read the following telegram which he received from the Executive Director of Connecticut Medical Service:—

"The Board of Directors cordially invites the Chairman of the Council of the Connecticut State Medical Society to a discussion of problems of mutual interest at 4:00 P.M. on Thursday, May 8th in the Board Room of the C.M.S. building in New Haven. Please acknowledge by telephone SPruce 7-4481. (signed) William H. Horton, M.D., Executive Director, Connecticut Medical Service."

It was voted that the Chairman, as an individual, decline the invitation with thanks in view of the action taken in item seven of these minutes, which expressed the desire of the Council to meet as a whole with the entire Board of Directors of Connecticut Medical Service for the purpose of resolving differences of opinion, etc. The following telegram was sent to the Executive Director of C.M.S.:—

"Dr. Thomas M. Feeney, elected Chairman of Council of Connecticut State Medical Society at Council meeting May 6, 1958, requests me to thank Board of Directors of Connecticut Medical Service for kind invitation of May 6. He must respectfully decline the invitation. Council, by unanimous vote, May 6, extends invitation to Board of Directors of C.M.S. to meet with Council in near future to discuss matters of mutual interest. Details to be arranged by respective chairmen. (signed) William R. Richards, M.D., Executive Secretary, Connecticut State Medical Society."

REQUEST FOR AUDIT

A motion by Dr. Blodinger to arrange for an audit was tabled.

The meeting adjourned at 7:00 P.M. following which a number of members of the Council dined together at the New Haven Lawn Club.

JOINT MEETING WITH C.M.S.

A reply by telegram from the Board of Directors of Connecticut Medical Service, Inc. was received May 9, 1958. The text was as follows:

"The Board of Directors regrets that the officers of the Connecticut State Medical Society declined its invitation to meet with them on May 8 to discuss problems of mutual interest but is pleased to accept the subsequent invitation of the Council to meet with them in the near future on a mutually agreeable date."

Resolutions Passed
House of Delegates, April 29, 1958

A RESOLUTION RELATING TO CONNECTICUT MEDICAL SERVICE

Whereas, there are several provisions of the new Connecticut Integrated Contract of Connecticut Medical Service, Inc., which are not acceptable to the majority of the members of the Connecticut State Medical Society, namely:

1. Extension of any Service Benefits above the present $5,000.00 income level, and
2. "Equivalent Full Payment" by any definition, and
3. "Necessary service" by any definition, and
4. "Reasonableness of Fees" by any definition, therefore

Be It Resolved: That the House of Delegates of the Connecticut State Medical Society disapproves the new Connecticut-Integrated Contract of Connecticut Medical Service, Inc., and

Be It Further Resolved: That Connecticut Medical Service be requested to withdraw this Contract from sale, immediately and permanently, and

Be It Further Resolved: That the House of Delegates of the Connecticut State Medical Society requests Connecticut Medical Service, Inc. to submit any proposed changes in contracts or any proposed new contracts to each component county association, and

Be It Further Resolved: That such proposed changes in contracts or proposed new contracts submitted in complete detail and in final form, must be presented for action at a meeting of each and every component county association before submission to the House of Delegates of the Connecticut State Medical Society for approval prior to submission to the State Insurance Commissioner for his approval.

A RESOLUTION CONCERNING STATE PARTICIPATION IN SOCIAL SECURITY

Whereas, the Congress of the United States has set a precedent by offering Social Security coverage on a state-by-state basis to the employees of certain state governments (Connecticut among them) who have by referendum voted in favor of inclusion under Social Security, and

Whereas, the members of the Connecticut State Medical Society and of certain other State societies have voted overwhelmingly in favor of Social Security coverage,

Therefore, be it resolved that the Connecticut State Medical Society through its Executive Secretary inquire of the American Medical Association as to feasibility of state-by-state physician participation in F.I.C.A. (Federal Insurance Contribution Act). Further, be it resolved if the American Medical Association offers no objection to such action the Connecticut State Medical Society investigate the same matter with its Congressional representatives.

A RESOLUTION CONCERNING AN A.M.A. REFERENDUM ON THE SUBJECT OF SOCIAL SECURITY COVERAGE FOR PHYSICIANS

Whereas, the controversy over Social Security for physicians has become more acrimonious, and is generating only heat when light is needed; and

Whereas, the pronouncements of the Houses of Delegates of the several state medical societies and of the American Medical Association may reflect sometimes the personal views of the delegates rather than the views of their constituents, regarding Social Security; and

Whereas, only by a nation-wide polling of all the members of the American Medical Association can the wishes of the physicians of this country regarding Social Security coverage be determined;

Therefore, be it resolved that the Connecticut State Medical Society go on record as favoring a nation-wide referendum of the members of the American Medical Association and hereby instructs its delegates to the American Medical Association House of Delegates to present to the said House of Delegates at its annual meeting in June 1958 an enabling resolution for the conduct of such a referendum.

A RESOLUTION CONCERNING THE FORAND BILL H.R. 9467

It was moved and passed by the House of Delegates of the Connecticut State Medical Society that the Society go on record as opposing the so-called Forand Bill (H.R. 9467) and allied bills, and further that the Executive Secretary of this Society inform the Connecticut representatives in the Congress of the United States of this action not later than April 30, 1958 and that at a future date when the action is propitious in Congress. (Telegrams to the eight Connecticut representatives in the Congress were sent on April 29th.)

Officers and Committees
Elected by the House of Delegates
on April 29, 1958
for year 1958-1959

President-Elect
Ellwood C. Weise, Sr.
Bridgeport

First Vice-President
Clyde L. Deming
New Haven

Second Vice-President
Donald J. McCrann
Hartford

Treasurer
Frank J. Polito
Torrington

Executive Secretary
William R. Richards
New Haven

Managing Editor of Journal
David T. Monahan
Bridgeport

Literary Editor of Journal
Louis H. Nahum
New Haven

Councilor-At-Large
Jachin B. Davis
New Haven

Speaker of the House of Delegates
Thomas M. Feeney
Hartford

Vice-Speaker of the House
Michael R. Scully
Bridgeport

Two Delegates and Two Alternates to A.M.A.
(for term of Jan. 1, 1959 to Dec. 31, 1960)
James R. Cullen, Hartford, Delegate
Charles N. Sullivan, New Britain, Alternate
J. Alfred Fabro, Torrington, Delegate
John H. Grossman, Bridgeport, Alternate

Delegate to A.M.A.
(to fill unexpired term of Dr. Thomas Danaher, resigned)
Gray Carter, Greenwich, Delegate

ELECTED STANDING COMMITTEES

1. Committee on Post-Graduate Education

Arthur Ebbert, Jr., New Haven, *Chairman*
Gray Carter, Greenwich
Malcolm M. Ellison, New London
Martin E. Gordon, New Haven
Marvin Lillian, New Haven
Robert M. Lowman, New Haven
William J. Lahey, Hartford
John C. Leonard, Hartford
Herbert Levine, Middletown
Howard Levine, New Britain
Oliver J. Purnell, Rockville
A. Rocke Robertson, Torrington

2. Editorial Board of the Journal

Louis H. Nahum, New Haven, *Chairman*
Edward W. Foster, Yalesville
Gerald J. Carroll, Norwich
Charles N. Sullivan, New Britain
Frederick C. Gevalt, Jr., Sharon
Mark A. Hayes, New Haven
Robert S. Gordon, New Haven
Samuel D. Kushlan, New Haven
Clarence W. Harwood, Middletown
Charles H. Peckham, Manchester
Michael S. Shea, New Haven
Otto G. Wiedman, Hartford
David T. Monahan, Bridgeport

3. Committees on Hospitals

George H. Gildersleeve, Norwich, *Chairman*
Jack H. Galen, Ansonia
Robert F. Buckman, Milford
Isadore H. Friedberg, Newington
Clyde L. Deming, New Haven
Edward J. Zebrowski, Plainville
Vincent A. Gorman, Bridgeport
Bernard F. Mann, New Haven
Nathaniel Selleck, Jr., Danbury
Dana L. Blanchard, Branford
Isadore S. Goldberg, Torrington
Michael S. Shea, New Haven
Leopold M. Trifari, Hamden

4. Committee on Industrial Health

John F. Kilgus, Hartford, *Chairman*
Fred A. Anderson, Norwich
Preston N. Barton, Meriden
Robert W. Butler, Waterbury
Norton Canfield, New Haven
Roland Z. Carignan, West Hartford
Jacob A. Saltzman, Waterbury
David C. Harvey, Middletown
Richard J. Hinchey, Waterbury
J. Howard Johnston, Whethersfield
Nicholas Samponaro, Torrington
Thomas F. V. LaPorte, Bristol
William Lee, New Britain
Daniel F. Levy, New Haven
A. Duncan MacDougall, Groton
George F. Martelon, Bridgeport
J. Wister Meigs, New Haven
Morris A. Granoff, New Haven
William M. Stahl, Jr., Danbury
Joseph J. Stapor, Hartford
Ellwood C. Weise, Bridgeport
C. Frederick Yeager, Bridgeport

5. Committee on Medical Education and Licensure

(A nomination to the Connecticut Medical Examining Board, one member for a period of 5 years commencing January 1, 1959 to succeed William R. Wilson.)

Edward Resnick, New Britain
John D. Booth, Danbury (1960)
Carl E. Johnson, New Haven (1961)
C. Louis Fincke, Stamford (1962)
Louis P. Hastings, Hartford (1963)

6. Program Committee

William J. Lahey, Hartford, *Chairman*
David T. Monahan, Bridgeport
Orvan W. Hess, New Haven

7. Committee on Public Health

William A. Wilson, Hartford, *Chairman*
Jack J. Blinkoff, Torrington
Alfred L. Burgdorf, Hartford
Joseph J. Esposito, Bridgeport
Clarence W. Harwood, Middletown
H. Patterson Harris, Jr., Fairfield
Louis P. Hastings, Hartford
Robert R. Keeney, Jr., Manchester
William S. Maurer, Willimantic
Leonard Parente, Hamden
Marjorie A. Purnell, Rockville
Robert P. Rogers, Greenwich
J. Harold Root, Waterbury
Edward T. Wakeman, New Haven
Joseph M. Wool, New London

8. Committee on State Legislation

John G. Murray, Greenwich, *Chairman*
Asher L. Baker, Portland
Luca E. H. Celentano, New Haven
Edmund L. Douglass, Groton
James S. Missett, Hartford
Brae Rafferty, Willimantic
Alfred Schiavetti, Stafford Springs
Winfield E. Wight, Thomaston

9. Committee on Public Relations

E. Tremain Bradley, South Norwalk, *Chairman*
Nathaniel Selleck, Jr., Danbury
Thomas H. Horrigan, East Hartford
Joseph C. Reidy, Winsted
Eric Twachtman, Chester
William S. Maurer, Willimantic
Harry C. Knight, Middletown
Luca E. H. Celentano, New Haven

10. CANCER COORDINATING COMMITTEE

William Mendelsohn, New Haven, *Chairman*
Ronald S. Beckett, Hartford
Gerard M. Chartier, Danielson
Joseph A. Chiota, Bridgeport
Armanno W. Ciccarelli, Bristol
Tibor DeCholnoky, Greenwich
Malcolm M. Ellison, New London
William A. Geer, Bridgeport
Lane Giddings, Manchester
Mark A. Hayes, New Haven
Isaac Horowitz, Bridgeport
Perry T. Hough, Hartford
Edward H. Kirschbaum, Waterbury
Norman K. Mottet, Derby
Lincoln Opper, Torrington
Edward J. Ottenheimer, Willimantic
Giocacchino Parrella, Milford
John G. Raymer, Norwich
Joseph A. Reynolds, Waterbury
J. Forbes Rogers, Stamford
Paul D. Rosahn, New Britain
Isadore Rothstein, West Hartford
Alfred T. St. James, Wallingford
Louis G. Simon, South Norwalk
James T. Smith, Winsted
William M. Stahl, Jr., Danbury
William F. Stankard, Stamford
John E. Thayer, Hartford
Vincent J. Vinci, Middletown
Wayne P. Whitcomb, New Haven
President of Cancer Society, Donald A. Bristoll, New Britain

EXECUTIVE COMMITTEE

William Mendelsohn, New Haven, *Chairman*
Malcolm M. Ellison, New London
William A. Geer, Bridgeport
Matthew H. Griswold, Hartford
(Rep. Connecticut State Department of Health)
Mark A. Hayes, New Haven
Perry T. Hough, Hartford
Edward J. Ottenheimer, Willimantic
Vincent J. Vinci, Middletown
President of Cancer Society, Donald A. Bristoll, New Britain

11. COMMITTEE ON MENTAL HEALTH

John Donnelly, Hartford, *Chairman*
Stanley J. Alexander, Middletown
John A. Atchley, Lakeville
Francis J. Braceland, Hartford
Jean G. deChabert-Ostland, Hartford
Franklin S. DuBois, New Canaan
John E. Morrison, Norwich

12. COMMITTEE ON THIRD PARTY PAYMENTS

Max Alpert, Bridgeport, *Chairman*
Francis Gallo, Winsted
Frank K. Abbott, Waterbury
Harry Bellach, New Britain
Max Caplan, Meriden

13. COMMITTEE ON EYE CARE

Rocko M. Fasanella, New Haven, *Chairman*
Morton Arnold, Willimantic
Alfred L. Burgdorf, Hartford
William I. Glass, Bridgeport
Henry L. Haines, New London
Joseph L. Hetzel, Waterbury
Norbert W. Humpage, Torrington
Dewey Katz, Hartford
John F. Kilgus, Hartford
Leonard Parente, Hamden
Harold C. Patterson, Danbury
Charles T. Schechtman, New Britain
John P. Simses, Bridgeport
Arthur C. Unsworth, Hartford
Frederick A. Wies, New Haven

DELEGATES TO STATE AND SPECIAL SOCIETIES

(for a term of 1 year July 1, 1958 to June 30, 1959)

TO MAINE:
Jack Gurwitz, Hartford
Sidney Luria, Bridgeport

TO MASSACHUSETTS:
Clifford W. Mills, Norwalk
James H. Root, Jr., Waterbury

TO NEW HAMPSHIRE:
Crawford Griswold, Bridgeport
George H. Gildersleeve, Norwich

TO NEW JERSEY:
E. Tremain Bradley, South Norwalk
Joseph B. Forman, New Haven

TO NEW YORK:
W. Bradford Walker, Cornwall
Walter I. Russell, New Haven

TO RHODE ISLAND:
George R. Cody, Norwalk
John E. Martin, Norwich

TO VERMONT:
William C. Billings, New Haven
Charles T. Schechtman, New Britain

TO CONNECTICUT HOSPITAL ASSOCIATION:
George H. Gildersleeve, Norwich

TO CONNECTICUT PHARMACEUTICAL ASSOCIATION:
Louis E. Garston, Torrington

TO CONNECTICUT STATE DENTAL ASSOCIATION:
The President

TO CONNECTICUT NURSE'S ASSOCIATION:
The President-Elect

COMMITTEES ELECTED BY THE COUNCIL WITHOUT ELECTION BY THE HOUSE OF DELEGATES

COMMITTEE ON COOPERATION WITH THE YALE SCHOOL OF MEDICINE

N. William Wawro, Hartford, *Chairman*

Howard S. Colwell, New Haven
Gregory K. Dwyer, Norwalk
Daniel Hardenbergh, Bridgeport
Edward Nichols, Hartford
F. Erwin Tracy, Middletown

Conference Committee With Connecticut Pharmaceutical Association

Benjamin Katzin, Torrington, *Chairman*
Dana L. Blanchard, Branford
Bradford S. Colwell, New Haven
Walter J. Keefe, Hartford
Fritz M. Meyer, Bridgeport

Advisory Committee to Woman's Auxiliary

Winfield O. Kelly, Norwich, *Chairman*
Ralph T. Ogden, Hartford
Oliver L. Stringfield, Stamford

Committee on National Legislation

James S. Missett, Hartford, *Chairman*
William B. A. Bentley, Waterbury
Joseph A. Fiorito, New Haven
W. Zeph Lane, Stamford
Charles T. Schechtman, New Britain
Vincent J. Vinci, Middletown
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Meetings Held In May

1	Annual Meeting—Stratford
2	Conference on State Medical Journal
6	Council
8	MEDICARE renegotiations—Washington Committee on Public Health
9	MEDICARE renegotiations—Washington
14	Committee on Accident Prevention Committee on Hospitals
21	Committee on Perinatal Mortality & Morbidity Council MEDICARE Committee Committee on Aging
22	Connecticut Medical Examining Board Public Relations Committee
28	Committee on Insurance Committee on Maternal Mortality & Morbidity Committee on Industrial Health

NEWS FROM WASHINGTON

Main Points of New System of Fee Basis Services to Veterans

AIMS AND PURPOSES

The Veterans Administration directive on new policy and procedure in negotiation of schedules of medical fees lists these objectives: (1) Advancement of close professional liaison at field station level; (2) simplification of dealings with state professional societies; (3) development of effective working relationships between VA medical personnel and members of constituent medical and osteopathic associations.

AUTHORIZATION

Under existing law, VA's chief medical officers in the several states "are authorized to consummate agreements with professional associations, private or public organizations, or persons to provide essential medical and ancillary services of acceptable professional standards on a fee basis in behalf of eligible veterans under conditions specifically approved by the Chief Medical Director."

Medical officers in the field are *not* empowered, however, to effect agreements with individuals to render service on a full—or part-time basis wherein an employer-employe relationship would exist. For this, approval by central office in the Nation's Capitol is necessary.

GENERAL PROVISIONS

Beginning July 1, VA's chief medical officers are authorized to develop and revise schedules of fees for medical services within their respective regional areas. Any upward adjustment of fees will be subject to approval by the Chief Medical Director.

"In lieu of formal contracts currently in effect to which fee schedules are attached, arrangements will be made by chief medical officers by agreement with the constituent associations to develop a mutually acceptable schedule of fees which will apply in authorizing services for the fiscal year beginning July 1, 1958. It will be understood that such arrangements which constitute a basis of understanding involve no payments to the associations by the VA."

Authorizations will be issued direct to participating physicians by the appropriate VA field office. Fee schedules will be executed on a standardized format furnished by VA.

In any state, VA may negotiate fee schedules separately with the medical and osteopathic societies. If an *osteopathic* association concurs in a schedule agreed to by the *medical* society in same state, a single-schedule plan will be adopted for joint use. "In the interest of uniformity," says the directive, "Central Office desires to encourage this approach to the extent possible."

In states having two or more VA chief medical officers, those attached to the following regional offices will be responsible for carrying out negotiations with professional groups: California, San Francisco (osteopathic only, medical undecided); Louisiana, New Orleans; Missouri, St. Louis; New York, NYC (osteopathic only); Ohio, Cleveland; Pennsylvania, Philadelphia; Texas, Dallas.

FEE SCHEDULES

"All fee schedules, negotiated on the standardized format, will be uniform with respect to numerical codes and descriptions of services listed therein. The content of the schedule will reflect those services generally authorized by field stations in the regional area and required by participating physicians to provide appropriate care and treatment to veterans."

"New items of service not previously listed in the schedule and for which there is a sustained demand may be introduced into the schedule as required at the option of the chief medical officer or the professional association."

"In the future, adjustments to fees listed in the schedule may be proposed. If increased allowances are solicited by the professional association, the proposal with supporting justification will be transmitted by that organization to the field station of jurisdiction prior to January 1 of each year. . . . Those proposed adjustments which are approved by the Chief Medical Director will become effective at the beginning of the next fiscal year."

NEGOTIATIONS

To date a dozen or more state medical societies have signed letters of agreement and approved fee schedules. Heretofore 15 states have had no contracts with VA and it is with reference to them that the new directive states: "In those regional areas where formal agreements are not in force . . . . chief medical officers will contact these organizations upon receipt of this circular to determine whether or not the association desires to arrange for a negotiated schedule."

DISTRIBUTION

"Copies of approved fee schedules will be reproduced locally by the field station of jurisdiction. Distribution will be made to each active participating physician, all VA hospitals within the regional area, other interested VA installations, the professional association and the ACMD-Operations, Central Office."

"Where negotiated fee schedules have not been established covering operations in fiscal year 1959 and Appendix A will govern fee allowances, chief medical officers are responsible for reproducing and distributing copies of the Appendix to each participating physician within the regional area."

ACCREDITATION

"Physicians already certified to the VA under terms of existing contracts with professional organizations as meeting eligibility criteria, i.e., U. S. citizenship and licensure to practice in the state, may continue to be utilized subsequent to July 1, 1958, without the need for redesignation. Member physicians in the intermediary states will continue to be utilized in accordance with contract provisions whereby listings of eligible physicians who have elected to render service through the contractor are submitted to the VA field station of jurisdiction."

"All physicians not comprehended in (foregoing) subparagraph desiring to participate in the VA medical program on a fee basis for the first time following the beginning of fiscal year 1959 will be appointed pursuant to the provisions of paragraph 2.13, DM&S Supplement, Part II, MP-5."

New Legislation

UNION WELFARE FUNDS

Senator McClellan (D., Ark.) proposes to require the registration of labor unions and labor relations counsellors and the observance of minimum standards in bylaws of unions. Name and title of each person responsible for administration of any trust in which a union is interested, including health and welfare funds, would have to be supplied the Secretary of Labor, along with other pertinent information. The bill is *S. 3618*.

DIABETES GRANTS

Senator Anderson (D., N. M.) in *S. 3690* would authorize grants to state or local agencies, universities, hospitals and laboratories for projects pointing toward the detection and control of diabetes and for rehabilitating persons suffering from the disease.

PUBLIC ASSISTANCE

As an antirecession measure, *H.R. 11678* by Rep. O'Neill (D., Mass.) would set up a fifth category of public assistance recipients for those needy persons not now eligible. General assistance is defined as money payments for medical care "or any type of remedial care . . . in behalf of needy individuals or families." . . . Rep. McCormack (D., Mass.) under *H.R 11703* would eliminate the 1956 restrictions but not disturb the increases in medical care payments. Prior to the 1956 changes, states were permitted to include money for medical care in their direct payments to recipients or to provide the care by making payments directly to the vendors of the medical services. Now states operate either under the old arrangement or a new system of direct vendor payments with federal participation limited to $3 per adult and $1.50 per child recipient . . . *S. 3685* by Senator Yarborough (D., Texas) would (1) increase federal participation in the four public assistance programs; (2) increase U. S. payments for medical care to $5.33 per month for each adult and $2.67 for each child and (3) provide for the U. S. to pay half the cost of administering these activities.

HILL-BURTON

Senator Langer (R., N.D.) would amend the Hill-Burton hospital construction program to extend eligibility to nonprofit corporations or associations that have a contractual affiliation with a nonprofit hospital. The number is *S. 3699*.

AID TO EDUCATION

Rep. Knutson (D., Minn.) is urging enactment of a mammoth grants bill calling for expenditure f $100 billion over 10 years for grants and loans o stimulate primary and secondary school construction, improve teaching and set up a nationwide school health program. The school health program would cost $2 billion over the 10 years. Half he health fund would be apportioned among states on the basis of the number of school-age hildren in each state, and the other half would go as grants to finance research in child health and to establish pilot programs for detection, control and treatment of children with health problems. The health section of the program would provide (a) medical, dental and mental health services to school children, (b) establish school health clinics and mobile clinics for rural areas, and (c) initiate programs to combat health problems prevalent among children. The number is *H.R. 11960.*

VETERANS BENEFITS

In *H.R. 12001,* Rep. Siler (R., Ky.) would authorize emergency outpatient treatment by Veterans Administration for any veteran, whether the condition is service-connected or not, if the veteran is receiving a pension or compensation. Also, VA would be authorized to reimburse any such veteran for emergency outpatient expenses incurred at a non-VA hospital.

AMA Asks More Regard for Safety Factors in Auto Construction

"In recent years safety has generally been ignored in favor of other developments in auto construction," the American Medical Association has told Congress. In the past, it said, efforts to induce the industry to accept such safety devices as built-in seat belts, crash padding and improved steering wheels "have met with little success." The Association's views were presented to a traffic safety subcommittee of the House Committee on Interstate and Foreign Commerce by Dr. Fletcher D. Woodward, chairman of the AMA's committee on medical aspects of automobile injuries and deaths.

Dr. Woodward took part in a panel discussion of the proper role of the Federal government in bringing about greater concern for human safety on the part of the authorities, the manufacturers and the public. Represented also were the auto industry, psychiatrists and psychologists, traffic control experts and the Air Force, which has done extensive research in the cause of accidents.

Dr. Woodward outlined work already under way and projected by his committee, including providing doctors with technical information so they can inform patients as to their driving limitations, a guide book on fitness to drive, a pamphlet for the public on medical aspects of driving, development of better standards for driver licensing and a study on design features of automobiles.

Discussing the reluctance of manufacturers to adopt established safety procedures, Dr. Woodward said:

"There is presently available an ample body of research data which clearly indicates the definite values of certain safety features of automobile design, construction and equipment. Yet, these safety features are all too often made available as optional equipment at extra cost. The automobile industry can make a great contribution toward solution of this problem by consulting with physicians, anthropologists, psychologists, related biological scientists, and other scientific professions, and by giving realistic consideration to the wide range of physical characteristics of automobile drivers and riders and what happens to them in a collision."

AMA Indorses 'Bricks-and-Mortar' Aid to Medical Schools

American Medical Association has indorsed legislation for federal grants to help build and equip medical and dental schools, but has advised Congress that it opposes any financial incentive to increased enrollment that might tempt schools to accept more students than they could properly train. The Association's views were presented to Chairman Oren Harris (D., Ark.) of the House Committee on Interstate and Foreign Commerce, which has under consideration three bills on this subject.

Dr. Blasingame's letter made these suggestions regarding amendments:

1. The Association has no objection to grants greater than 50 per cent of the cost of a project, if there is no financial incentive to increased enrollment. One bill *(H.R. 7841)* would limit the grant to 50 per cent, unless the school agreed to increase its freshmen enrollment by 5 per cent, in which case the school could receive up to two-thirds of the cost.

2. A proposed advisory federal council should have six of its members "from among leading med-

ical authorities and public members should include persons skilled in the broad aspects of engineering, education, finance and architecture."

3. The definition of "schools of medicine" should be changed to eliminate schools of osteopathy from benefits. "Osteopathy is not a part of medicine, but rather is a cult the tenets of which are based on unscientific principles. . ."

Rep. Forand Quietly Confident on His Bill

The senior Congressman from Rhode Island is serenely confident his controversial social security bill will be acted upon favorably before Congress quits this summer. That is the impression *Washington Stethoscope* got in an interview with Rep. Aime J. Forand recently.

National, state and local medical societies are speeding up the tempo of their drive against HR 9467 and its so-called "socialized medicine" features. But the bill's author feels it will be put to committee hearings in May and is optimistic on the outcome.

"A friend sent me the letter which Dr. Allman mailed to all doctors," said Rep. Forand, referring to the April 4 message signed by AMA President David B. Allman. "In it were a good many errors and misstatements. If I am able to find the time, I may point out what the real facts are."

On the other hand, a House colleague indorsed the Allman opinions and said he heard objections to the Forand bill from many quarters when he was home during Easter recess. This was Rep. A. L. Miller, M.D., a Nebraska Republican. Chamber of Commerce members in his district are especially critical, he stated. "But Reuther may force it down our throats," Dr. Miller said. HR 9467 is a product of AFL-CIO, of which Walter Reuther is vice president.

Figures on Frequency of Physician Visits Issued

First detailed report to be published on U. S. National Health Survey was issued recently by Public Health Service. Its subject is volume of physician visits in third calendar quarter of 1957. The 25 page booklet consists principally of graphs and tables depicting places of physicians' visits (home, office, hospital, telephone), age and sex factors, urban and rural data, etc. Information is distillation of data collected between July 1 and Sept. 29 last year in door-to-door interviews throughout country, covering 28,500 persons.

By projection of this sampling, it is estimated that 199 million physician visits were made in this three-month period. This is at rate of 4.8 visits annually. For males of all ages, rate is 3.9; for females, 5.5. Two out of three visits are in doctor's office and only 8 per cent are in patient's home.

Women over age 65 consult the doctor most frequently, according to this survey—7.6 times a year. At the other age—sex extreme is the 5-14 female group, with an average of 3.2 visits annually.

More than two-thirds of all visits involve diagnosis or treatment, or both. General checkup accounts for about 10 per cent and remainder involve prenatal or postnatal care, immunization and miscellaneous services.

Dependents' Free Choice of Care Questioned

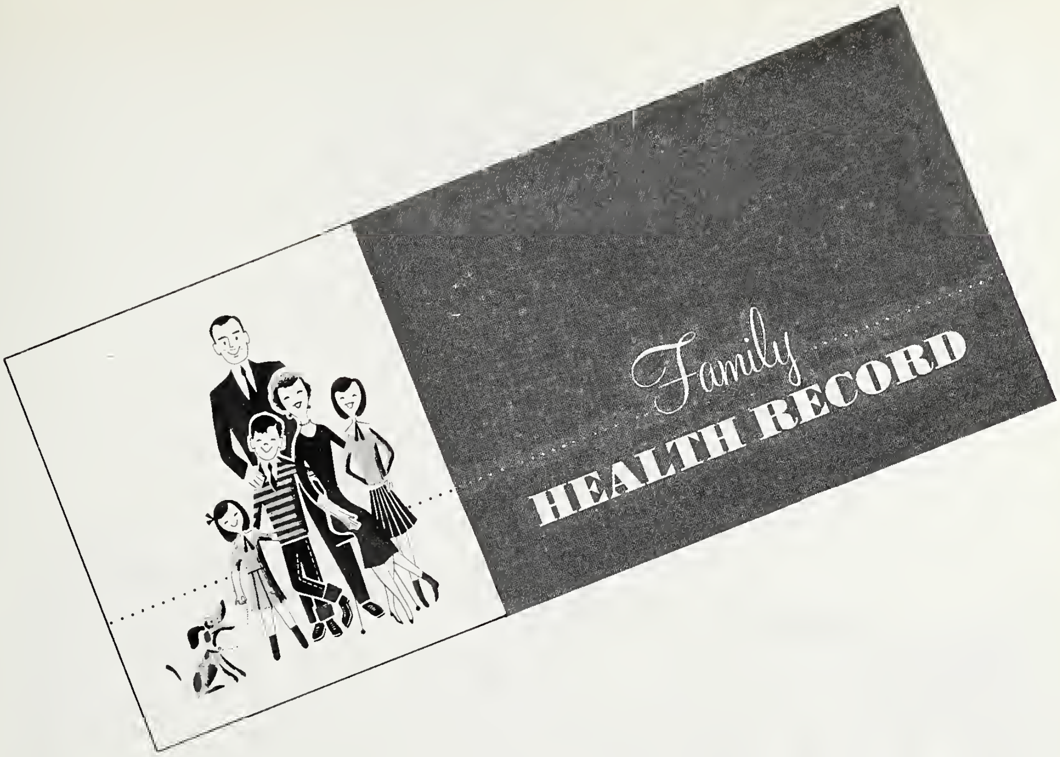
Congressional rumblings and grumblings against Medicare policies and expenditures could erupt into stern reforms. At recent hearings, held behind closed doors, House members challenged the right of military dependents to free choice of medical care and expressed doubt that Medicare is a reenlistment incentive.

Major Health Organizations Announce Program For Aged

Better health care for the nation's 14 to 15 million aged is the goal of a comprehensive program announced recently by the Joint Council to Improve the Health Care of the Aged.

The council's attack on the more knotty problems of health care for the aged is designed to: (1) increase opportunities for older people to obtain voluntary health insurance coverage, (2) expand health care facilities tailored to the needs of the aged regardless of economic status, and (3) develop more community health services for the aged.

The program will be implemented through the active and aggressive leadership of the council's four sponsoring organizations—the American Dental Association, American Hospital Association, American Medical Association, and the American Nursing Home Association.



The Family Health Record has been designed to encourage the keeping of basic health information. It provides space for recording dates of immunizations, illness, hospital stays, health insurance data and other useful information.

A well-kept record can be helpful when starting a medical history—and the information can often be used for insurance, camp, school, or other purposes, thus helping to reduce office phone calls.

Use the coupon below if you would like a half-dozen copies of the record to test patient reactions.

CONNECTICUT STATE MEDICAL SOCIETY
160 St. Ronan Street
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Please send six copies of the Family Health Record.

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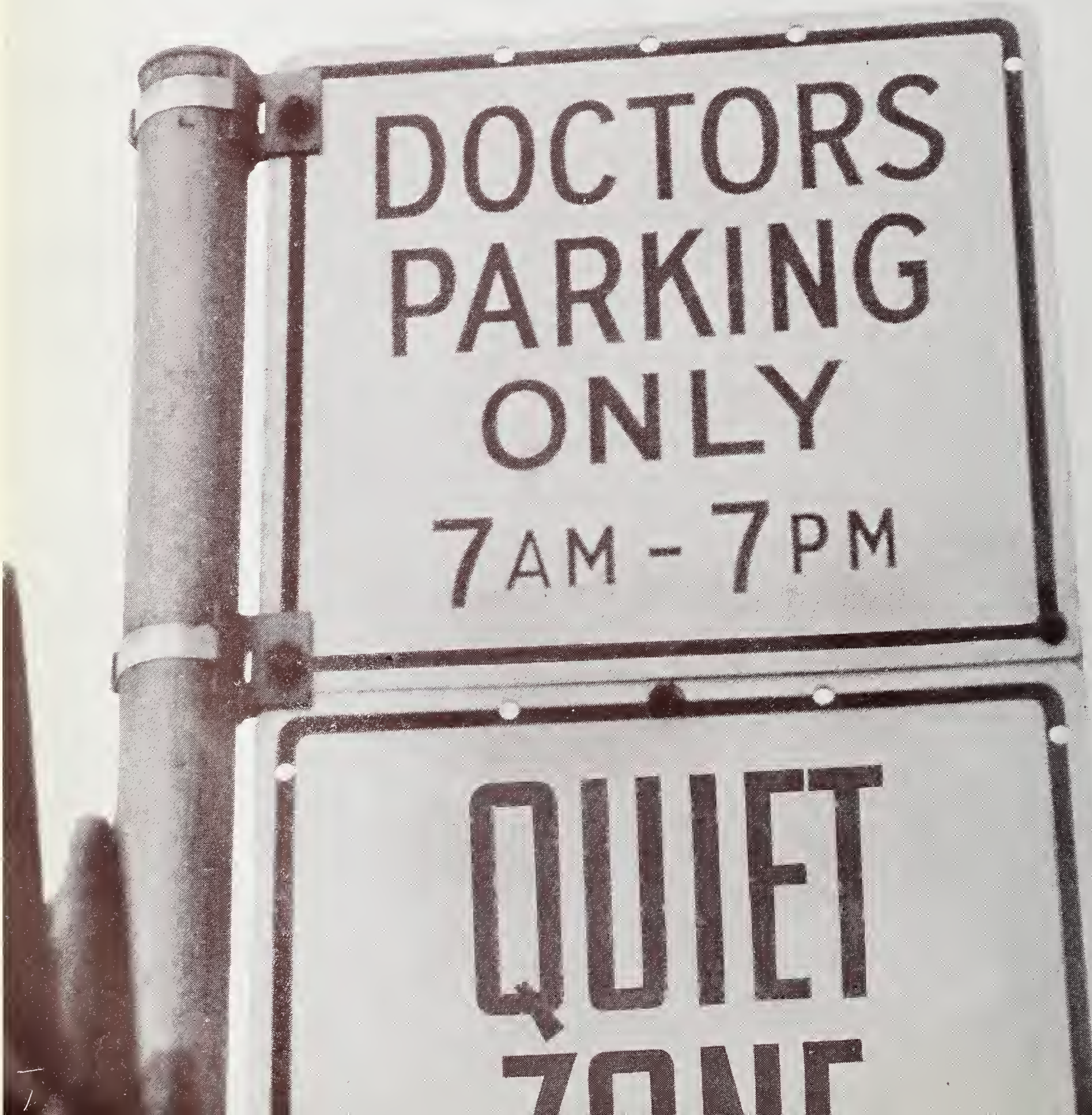
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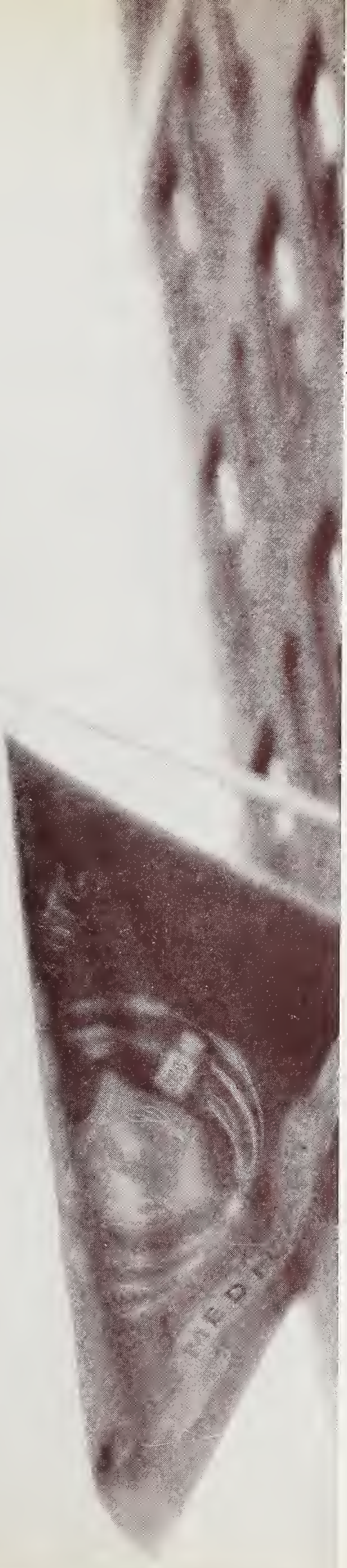

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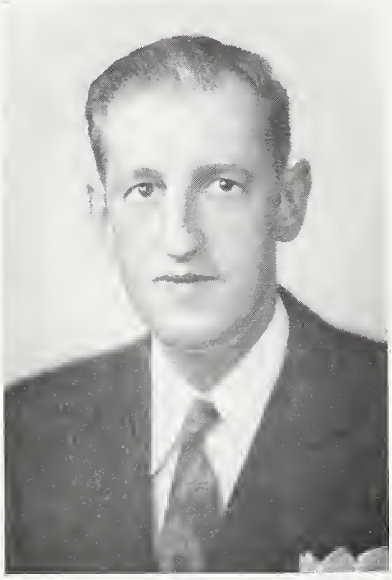
OBITUARY

Charles Leonard Smith, M.D.
1911-1957



Dr. C. Leonard Smith of Hartford and West Hartford died after a short illness in the Hartford Hospital on October 18, 1957.

With his death the Hartford Hospital and the community lost one of its kindest and most selfless doctors. Not only was he accomplished in his specialty of radiology, but perhaps more than that he embodied all the spiritual qualities and sympathetic understanding of the good physician. To all with whom he came in contact, whether in the practice of medicine or in the every day walk of life, he was more than a doctor. He gave every bit of himself to be friend, counselor, and helping hand, no matter what the circumstance. His philosophy of life was moulded by his early affliction with rheumatic heart disease, which made his outlook both gentle and fortitudinous. Never hurried, he was always most friendly with everyone and ready to lend his moral and physical support whenever needed.

Dr. Smith was born in Newark, New Jersey, May 22, 1911. After attending Columbia College and New York University College of Medicine from which he received his medical degree in 1941, he interned and received residency training at Grasslands Hospital. He became associated with Drs. Roberts, Ogden and Hall in the private practice of radiology in May, 1944 and was appointed to the Hartford Hospital staff, where he became assistant in the Department of Radiology. He was also on the staff of the Manchester Memorial Hospital and the Charlotte Hungerford Hospital. The Section on Radiology of the Connecticut State Medical Society appointed him councillor to the American College of Radiology.

He is survived by his wife, Ruth Rhoden Smith.

The loss of Leonard Smith will long be felt by his associates and his host of friends.

John H. Woodruff, M.D.

SPECIAL NOTICES

New England Division
Eleventh Annual Conference
National Rehabilitation Conference
The Farragut, Rye Beach, New Hampshire
June 12 and 13, 1958

LEGAL MEDICINE SESSION IN SAN FRANCISCO

Physicians who plan to attend the A.M.A. session in San Francisco and who are interested in the subject of malpractice suits should circle the date, June 24, on their calendars.

On that Tuesday afternoon, the A.M.A. law department is sponsoring a session on legal medicine in the Black Room of the Masonic Temple in San Francisco. The session will begin at 2 P.M. It was at the A.M.A. meeting in San Francisco four years ago that the first such session was held before a capacity audience.

The speakers and subjects to be presented are:

Howard Hassard, San Francisco—"Standard Provisions of Professional Liability Insurance Policies."

Joseph Linder, New York—"General Malpractice Insurance Problems."

Joseph F. Sadusk, Jr., M.D., Oakland—"Expert Advisory and Witness Panels."

C. Joseph Stetler, Chicago—"National Medical Professional Liability Trends."

ANNUAL REPORTS

OF THE CONNECTICUT STATE MEDICAL SOCIETY

1957 - 1958

(Continued)

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William F. Stankard
John E. Thayer
Vincent J. Vinci
Wayne P. Whitcomb

Reorganization of the Committee—On June 20, 1957, the original Cancer Coordinating Committee was reconstituted to include what was formerly the Association of Tumor Clinics. The larger committee is made up of chairmen of the Tumor Clinics of the hospitals in Connecticut and will be governed by an Executive Committee of nine members. The purposes of this committee are to coordinate and integrate the efforts of the various agencies conceived with the study, prevention and treatment of cancer in Connecticut; to aid and encourage the establishment and maintenance of high professional standards in the cancer clinics of the general hospitals, and to organize and promote professional education regarding cancer in Connecticut.

Executive Committee: William Mendelsohn, Chairman; Malcolm M. Ellison, William A. Geer, Matthew H. Griswold, Mark A. Hayes, Perry T. Hough, Edward J. Ottenheimer (President, Connecticut Cancer Society), Vincent J. Vinci.

Meetings—The larger committee held one organizational meeting and the executive committee held four meetings. They were well attended.

Tumor Clinic Supervision—Dr. William Wawro will continue to visit the various tumor clinics and will now report directly to the committee.

Professional Education—A copy of the Year Book of Cancer was distributed free of charge to each hospital library in Connecticut.

The 11th Cancer Teaching Day Program was again initiated by this Committee. It was held in Hartford on March 19. The committee consisted of Robert Shapiro, chairman; Bernard Mann, Richard Elgosin and Gilbert Heublien. The subject was Rectal Bleeding and a successful session was held.

Advisory Committee to the Connecticut Cancer Society—The Advisory Committee was again appointed by this committee and consists of Drs. Theodore Evans, Chairman; Ernest C. Shortliffe, Stuart C. Finch, Edward M. Cohart, Ralph E. Katzenstein, Joseph J. Esposito and Francis A. Sutherland.

Review of Films—A new sound film "Two in Time" was reviewed and approved by the committee. This film stresses early diagnosis of cervical and uterine cancer.

Cancer Registry—This committee continues to assist Dr. Griswold in some of his problems associated with the Cancer Registry in Hartford. New projects involving statistical studies of cancer in Connecticut are discussed with the committee and approval sought. A study of the genetics of human cancer in Connecticut was approved.

Resignation of Allan Ryan—After serving as chairman of the committee for more than ten years Allan Ryan has left to become Literary Editor of the *Journal* of the Connecticut State Medical Society. This committee wishes to express its appreciation for the excellent manner in which Allan Ryan directed the affairs of this committee and we wish him every success in his new job. The *Journal* is fortunate in having Allan Ryan as its new Literary Editor.

Respectfully submitted,
William Mendelsohn

REPORT OF THE COMMITTEE ON MENTAL HEALTH

John Donnelly, Chairman

Stanley J. Alexander
John A. Atchley
Francis J. Braceland
Charles S. Culotta
Jean G. deChabert-Ostland
Franklin S. DuBois
John E. Morrison

The Committee on Mental Health has met on a number of occasions, the last meeting being January 23, 1958. During the past year, a number of new problems arose within the State regarding the mentally ill.

It may be recalled that last May problems arose within the organization of the State Department of Mental Health. On May 28, 1957, the then Commissioner of Mental Health wrote to the Mental Health Council requesting the discharge of Dr. William Green, Superintendent of the Fairfield State Hospital on the following grounds:

1. Vindictive and abusive treatment of employees.
2. Active obstruction to the proper development of needed psychological services, occupational therapy services, and institutional patrolman services.
3. Gross administrative mismanagement.

The Board of Trustees of the Fairfield State Hospital expressed confidence in the superintnedent. Dr. Blasko resigned from his Commissionership on June 5, 1957.

Following the resignation of the Commissioner, the Governor appointed a special committee composed of Judge Maltbie, Dr. Braceland, Dr. Redlich to advise him. The committee met with the Commissioner, with Dr. Green, and with others and advised the Governor to obtain outside consultation from the American Psychiatric Association. Dr. Daniel Blain and Dr. Charles Bush undertook an investigation and submitted to the Governor a report on the relationship between the Department of Mental Health and the Fairfield State Hospital.

This report brought out some of the difficulties such as the high responsibility but low level of authority given the Commissioner in the exercise of his job. There were times when the Commissioner was unable to speed up needed improvements to the extent that he wished and in the way and as quickly as he wished. The report mentioned the natural resistance of successful administrators to the imposition of outside authority and commented that it was probable that this resistance was reflected by personnel in each of the hospitals in some measure. It mentioned that the relations between the Commissioner and the hospitals in Middletown and Norwich were quite different from the relations with Fairfield Hospital. The report also mentioned the difficulties of the superintendent at Fairfield such as the isolation of the hospital, bad location, the employment problem, the shortage of staff, and the deterioration of buildings.

It was mentioned that some men are more conservative than others and more outspoken, and Dr. Green was one of these. It brought out that Dr. Green had at times acted quickly and forcefully and that he was credited with the ability and courage to do what was necessary. The Board of Trustees at Fairfield had always backed Dr. Green and, in agreement with him, had voted against the original idea of the concentration of authority in a central department. Dr. Green had stated openly that he felt the law of 1953 was a mistake and it was felt that his reaction was interpreted at times by the Commissioner as stubbornness or refusal to cooperate. With this situation the Commissioner and the Superintendent reacted in hostile fashion to each other. The superintendent protected himself from outside authority and interference by meeting it head on, taking care to obtain the approval of his trustees and ignoring the authority of the Central Office which had no power to enforce its policies. The Commissioner felt that he was unable to accept this situation.

With regard to the specific charges, the Blain-Bush report indicated that on the first charge action was taken with some employees on the basis of facts which might not have been available to the Commissioner. With regard to the second charge, the superintendent had attitudes which were shared by many physicians towards clinical psychologists and while the consultants disagreed with the superintendent's position, they regarded it as not an improper one to defend. With regard to the other factors, it was felt that improvement could be made when one considered the special situation involved. With regard to the last charge of administrative mismanagement, the consultants found no evidence available. The consultants stated their opinion that they had reasons to be confident that patients were as well taken care of at Fairfield State Hospital as the budget would allow.

The consultants were convinced that the Commissioner made an enviable record and had presented the State with a sound, imaginative, and bold program which laid the foundation for progress.

On June 7, 1957, the legislature passed House Bill 2439 effecting changes in the Department of Mental Health. The Council of Mental Health was abolished and a State Board of Mental Health created of 7 members, 3 of whom are psychiatrists, with the Commissioner of Mental Health as ex-officio member of the Board. Under this law the executive head of the Department of Mental Health would be the Commissioner of Mental Health appointed by the Governor after consultation with the Board. He shall be a doctor of medicine, licensed to practice medicine in Connecticut and have broad experience in hospital administration and, if practicable, in psychiatry. In effect the Board of Mental Health of 7 members shall have active authority and responsibility for supervision, developing and maintaining progress and policies concerning the care and treatment of the mentally ill, the administration of the Department and for recommending legislation in this area. The Commissioner is responsible to the Board. He has authority to appoint and discharge superintendents, both with the approval of the Board. From the Boards of Trustees was removed the power of appointment and discharge but in effect the new law removes from the Boards of Trustees only the responsibility for the treatment program of the hospitals.

The Governor appointed to the new Board of Mental Health the following persons: Mr. Andre Blumenthal of Norwalk; Professor Elias Clark of New Haven; Mr. William Donnelly of Greenwich; Miss Rosemary Park of New London; Dr. John Donnelly of Hartford; Dr. Franklin DuBois of New Canaan; Dr. Fritz Redlich of New Haven; and the Acting Commissioner of Mental Health, Dr. Elias Marsh, is an ex-officio member. Mr. Blumenthal, Dr. DuBois, and Professor Clark were elected chairman, vice-chairman, and secretary respectively.

The new Board of Mental Health came into official existence on October 1, 1957, and has been meeting regularly. The Board of Mental Health has been surveying the country as a whole with the purpose of getting the best qualified, available person for the position of Commissioner but as yet no decision has been made. In the interim Dr. Elias Marsh is serving in the capacity of Acting Commissioner.

The last meeting of the legislature was also an important one from the point of view of mental health in another area. The legislature passed a bill, Public Act No. 650, setting up a Board to prepare plans for the establishment of a Security Treatment Center for mentally ill persons who have been involved in criminal acts. This public act was passed before the establishment of the new Board of Mental Health and in terms of its statutory existence has the same position and powers as did the Boards of Trustees of the State mental hospitals before the appointment of the new Board of Mental Health. A great many problems are involved in such an institution. It is of special significance to the State Medical Society because of the difficulties with regard to the clinical program and the staffing problems of such an institution and because of potential eventualities on the community level. The Board of the Security Treatment Center is at work in the preparatory stages of investigation and planning.

Your Mental Health Committee has again gone on record in reaffirming its support of the development of psychiatric wards in general hospitals throughout Connecticut. It is known that a number of hospitals are cautiously examining the possibility of developing these units and the Committee would urge that the State Medical Society do all that it can to encourage hospitals in this direction. It is quite obvious that such psychiatric wards in general hospitals will be of great significance in helping solve the massive problem of mental illness. The advantages of such wards were clearly outlined in the report of the Committee to the House of Delegates last year.

The Committee has also concerned itself with the question of health insurance coverage for psychiatric illness. The chairman of the Committee attended the Fourth Annual Conference of Mental Health Representatives of State Medical Associations held in conjunction with the AMA Council on Mental Health at the Drake Hotel, Chicago, November 22 and 23, 1957. The conference went on record as being very much in favor of such coverage by Blue Cross, Blue Shield, and other voluntary health insurance plans. The Mental Health Committee of the State Medical Society endorsed the points stressed by the conference, namely:

(1) It be appreciated and recognized that psychiatry is an integral part of medicine.

(2) Psychiatrists should not be importuned to falsify diagnoses. It is recognized that there should be no stigma attached to nervous and mental disorders.

(3) Purchasers of insurance benefits and plans make every effort to assess the contingencies they wish covered and contract for those benefits they deem to be appropriate.

(4) Psychiatrists should cooperate with underwriters in refining definitions of nervous and mental disease categories so that insurance and related programs can appraise properly the incidence and duration of many conditions to the end that they may be brought more generally within the scope of benefit coverage to the same extent as other entities.

(5) In connection with point No. 4, insurance programs should not include arbitrary restrictions upon the type of facilities used in carrying out medically recognized methods of treatment.

(6) The relatively new approaches known as major hospital and medical expense insurance be encouraged since, as mentioned previously, these programs do not generally interfere with professional judgment in patient treatment.

(7) Psychiatrists should make available their specialized professional knowledge to those who are responsible for the successful operation of Blue Shield, Blue Cross, and other types of voluntary insurance plans.

Your Committee also considered a Resolution passed by the Second Annual Conference of Mental Health Representatives of State Medical Associations with the AMA Council on Mental Health in November, 1955, which recommended that members of the Committee on Mental Health of the State Medical Societies be appointed for a term of three to five years and that at least one member be replaced annually. The Resolution also suggested representation on Mental Health Committees of fields other than psychiatry and this Mental Health Committee noted that fields such as internal medicine, pediatrics, etc., were already represented on this Committee. The Mental Health Committee expressed itself as being in favor of the principle of a minimum four-year term for members of the Committee with two new appointments being made each year. In this way new blood would be available to the Committee yet continuity for the completion of projects would be provided. (This will require a revision of Article X, Section 3, Par. 13 of the By-Laws.)

The Committee also considered the suggestion made by Dr. Leo H. Bartemeier, chairman of the AMA Council on Mental Health, that a liaison be established with the corresponding committee of the Woman's Auxiliary to the AMA and the chairman was instructed to take further steps in this connection.

Many other subjects have been considered. For example, the legal aspects of the commitment of patients and the matters of privilege and confidentiality as it relates to psychiatric patients. In 1955, Public Act No. 89 was passed with regard to the subpoena of hospital records and it was noted that in this act the records of the mentally ill were exempted from the act. The interpretation of the exemption, however, was not so clearcut. A sub-committee is being appointed to concern itself with such matters.

The Committee in previous years has concerned itself with drug addiction and with legislation relating to drug addiction. The Mental Health Committeee has not taken any further action as yet, but wishes to reaffirm its support of the suggestions made to the House of Delegates last year that a study be made of this problem, such study to involve the medical and legal professions and to secure the support of interested citizens in efforts to work out solutions.

The chairman respectfully thanks the members of the Mental Health Committee for their cooperation and for their work during a difficult period. Thanks are particularly due to Dr. Creighton Barker for his interest, understanding, and assistance at all times. It is clear that the Mental Health Committee has many continuing problems which will require much work for their resolution.

Respectfully submitted,
John Donnelly

REPORT OF THE COMMITTEE ON THIRD PARTY PAYMENTS

William H. Curley, Jr., Chairman
Donald G. Arnault
Frank H. D'Andrea
Michael J. Conroy
Benjmain V. White

Report of the Committee on Third Party Payments to the annual meeting of the House of Delegates of the Connecticut State Medical Society, April 29, 1958.

Two matters of interest have come before this Committee since the last annual meeting of the House of Delegates. At a meeting of this Committee on August 8, 1957, the outline of benefits for a proposed complete Connecticut Contract of the Connecticut Medical Service was approved. It was understood that this proposed contract was not to replace the present Preferred Connecticut Medical Service Plan and that fees will be discussed with the representative specialty sections of the Connecticut State Medical Society.

In addition, the principles of integration of the Connecticut Medical Service Preferred Contract with major medical expense programs of insurance companies as set forth in a Connecticut Medical Service memorandum of July 15, 1957 were also approved by this Committee. It is to be emphasized that the same policy that now governs Connecticut Medical Service be applied to any major medical expense program and that, insofar as possible, the non-participating physician not be given an advantage over the participating physician by any such integration of the Connecticut Medical Service Preferred Contract and major medical expense program of insurance companies.

At the request of the Council of the Dermatology Section of the Connecticut State Medical Society, this Committee met with these gentlemen on September 12, 1957 in order to discuss the relationship between the Connecticut Dermatologists and the Connecticut Medical Service. It was obvious, that over the years, there has been increasing and constant friction between the two. To cover in detail the points discussed would be impossible in anything less than a book. In short, however, among others, the following charges were made by the dematologists:

1) Connecticut Medical Service does not heed the advice and desires of the Section on Dermatology.

2) There is no dermatological representative on the Professional Policy Committee.

3) Connecticut Medical Service rules on dermatological lesions which it knows nothing about.

4) Connecticut Medical Service refuses payment for lesions even with biopsy.

5) The dermatologists object to the requirement of a biopsy in the treatment of certain facial lesions in particular, and feel that experienced dermatological clinical judgment is sufficient to determine the diagnosis of malignancy or benignancy in a given skin lesion.

6) Connecticut Medical Service does not pay the same fee for the same service if it is rendered in the office rather than in the general hospital.

7) Fees were changed by Connecticut Medical Service in 1953 by unilateral action instead of consultation with the dermatologists as had been promised.

8) Connecticut Medical Service's interpretation of cosmetic surgery was not in accord with the dermatological interpretation.

9) The Connecticut Medical Service policy decisions concerning claims processing for professional services outside a general hospital effective August 1, 1957 were dictatorial, autocratic and make it impossible to render optimum dermatologic surgical care to the patient.

On October 4, 1957, material covering all of these points was forwarded to the Connecticut Medical Service for action by the Professional Policy Committee. This Committee felt that the election of a dermatologist to the Professional Policy Committee would go far to alleviate dissatisfaction of the Section of Dermatology with the Connecticut Medical Service and would enable both the dermatologists and the Professional Policy Committee to find suitable solutions to these problems in the interests of better care for the Connecticut Medical Service subscriber.

In response to a directive of the House of Delegates of the Connecticut State Medical Society on April 24, 1956, to "complete the task of preparing a statement of policy for guidance of the members of the Society in meeting the problems of third party payments," the following "Principles to be considered in making agreements with Third Parties" is respectfully submitted.

Preamble—These principles are intended to aid the members of the Connecticut State Medical Society as individuals, the members of the Council as their representatives and members of various Society committees that may deal with such matters.

Section 1. *Neither individual members nor the council of the Society nor committees of the Society shall enter into an agreement with a third party which places a physician in a position defined as unethical by the code of ethics adopted by the House of Delegates of the American Medical Association.*

Section 6 of the Code of Ethics as adopted in June 1957 states: "A physician should not dispose of his services under terms or conditions which interfere with or impair the free and complete exercise of his independent medical judgment and skill, or cause deterioration of the quality of medical care."

Section 2. *Any agreement between the Society and a third party shall make clear that a physician may choose whom he will serve and shall state that except in emergencies the physician is under no moral obligation to render a stipulated service.* It is apparent that the efforts of the State and Federal Government to cover large groups of citizens introduce an element of "public interest" in the service being rendered. Thus the moral obligation to render service under a given agreement is likely to become increasingly stronger. At the present time, many physicians feel that because of "public interest" there is a moral obligation to render services for beneficiaries of the State Welfare Department. This will probably become true under Medicare. Inasmuch as the Society has no direct control over its members except through the constituent county organizations it is apparent that any agreement with a third party which implies a moral obligation to render the service must be ratified by the individual member.

Section 3. *The Connecticut State Medical Society has no authority whatsoever to dictate to its members what fees they must accept for any particular service whether it be provided for an individual, a group, a trust fund, or for Connecticut Medical Service.* Likewise the Connecticut State Medical Society cannot direct nor does it desire to force its members to perform any services under fixed or arbitrary schedules of compensation. Any agreement which obligates members of the Society to render services under such fixed or arbitrary schedules shall be approved individually by the member who contemplates rendering such service.

Section 4. *The presence or absence of an agreement to render service benefits shall be clearly stated.* With Connecticut Medical Service each participating physician has signed an agreement to accept service benefits for persons in stipulated income groups. It is essential that future agreements with third parties such as the State Welfare Department, the Veterans Administration, Medicare and carriers of Workman's Compensation make clear whether or not participating individuals are obliged to accept service benefits.

Section 5. *When relative value or other fee tables are suggested by the Society to third parties, they shall be prepared by or on the advice of groups of physicians with adequate consideration for the various fields of practice involved.*

Section 6. *As far as possible the principle of free choice of physician should be preserved.* The limitations imposed by specialization, agreement with carriers of Workman's Compensation, geographic inconvenience, lack of availability of over-burdened physicians, and the existence of clinics have all detracted from the ability of the patient to make his own choice of physician for a given illness or service. The Society also believes that an individual or group of individuals should have the opportunity to select the type of medical care insurance program desired by them.

Section 7. *Fees for services performed by physicians should be reasonable and related to the services performed and not to the amount or type of insurance available to the patient.* The Society recognizes that there must be variations in fees because of geographical differences, varying degrees of training, skill, specialization and experience of physicians; differing conditions encountered in treating individual patients; and usual versus unusual cases.

Section 8. *The traditional relationship between patient and physician is best preserved when payments by third parties are made direct to the patient and not assigned to the physician.* The assignment of fees may lead to confusion on the part of the patient as to the true value of the services rendered or even as to the nature of the services which are being covered.

Thus the patient's direct sense of responsibility to the physician may be diluted. There is also a hazard in the practice of assigning benefits to another interjected party such as a hospital which subsequently remits the payment to the physician in part or in full. The Society recognizes that there may be specific situations, such as service benefits under Connecticut Medical Service, where the argument for assignment outweighs that for direct payment.

Section 9. *If through necessity an agreement with a third party carries an obligation for the physician to render services under a substandard fee schedule, the reasons for adjusting such a fee schedule shall be made clear in the agreement.*

Respectfully submitted,
William H. Curley, Jr.

REPORT OF THE COMMITTEE ON EYE CARE

Clement C. Clarke, Chairman

Max Alpert
Morton Arnold
Alfred L. Burgdorf.
Joseph L. Hetzel
Norbert W. Humpage
Dewey Katz
John F. Kilgus
J. Myles O'Brien
Leonard Parente
John P. Simses
Arthur C. Unsworth
Frederick A. Wies

Serving as the clearing house for the problems of eye care in Connecticut required eight meetings of this committee during the past year. The Committee feels that one of its prime objectives is to serve as a coordinating agent for the many programs which are being conducted throughout the state by various organizations in the eye field. Cooperation from other related committees and assistance from the executive secretary and the Council of the State Society have been generously forthcoming at various times.

The Eye Care Committee, cooperating with the committee on State Legislation, opposed those House Bills which seemed to promote an extension of responsibilities beyond the training of the optometrists who introduced them. A number of ophthalmologists, including several committee members, appeared before the House Committee on Public Health and Safety. None of these bills reached the floor of the House.

During the past year an unfavorable reaction developed against the opticians when they uncovered a ruling of the Commission on Opticians which stated point-blank that physicians, even those trained in ophthalmology, could not adjust or dispense glasses. After much negotiation the Commission of Opticians in March 1958 saw fit to rescind the objectionable executive ruling *(XL)*. Since this action was actually accomplished by the opticians themselves, the relationship between opticians and ophthalmologists resumes a more pleasant basis.

In October 1957 the School Vision Testing Form, which has been officially adopted by the State Medical Society, was distributed in the form of a reprint from the *State Medical Journal* to all school superintendents, school physicians, and school nurses in Connecticut. Many of the schools throughout the state are now using this form and it is hoped that more will do so as it becomes better known.

The program for testing the vision of pre-school children conducted by volunteers from the Delta Gamma Sorority with the aid of the National Society for the Prevention of Blindness called for a letter of commendation and endorsement which was sent from this committee to the Connecticut Chapter of the N.S.P.B.

An inquiry from the Committee on Public Health of the State Society as to the most desirable ophthalmic prophylaxis for use in the newborn was answered by a fine review by Dr. Unsworth, the secretary of this Committee, who concluded that the standard treatment of 2 per cent silver nitrate drops was still considered the best by most people and is still required by law.

The Committee continues to encourage the establishment of Low Vision Aids Clinics in Hartford and New Haven with progress somewhat slow to date.

A very important surge of interest in the field of glaucoma detection has arisen from two separate sources: 1) the Department of Public Health, both federal and state, and the 2) National Society for the Prevention of Blindness, both national and state organizations.

Our Eye Care Committee is certainly in favor of anything which will aid in detecting glaucoma early, for it is in the early stages that it is most amenable to treatment. Considerable help was given by this Committee to the State Department of Health in setting up a joint pilot program for teaching general practitioners the tonometric method of detecting increased intra-ocular pressure. This program is continuing and will be reported upon elsewhere.

The Connecticut Chapter of the National Society for the Prevention of Blindness is promoting a scheme for mass screening for glaucoma and has delegated the administrative and promotion aspects to the Lion's Club. Since this program entails some dangers of exploitation and misinterpretation, this Committee has written to the medical director of the Connecticut Chapter of the National Society for the Prevention of Blindness recommending that the program be referred to the E.E.N.T. Section of the Connecticut State Medical Society for discussion and better coordination with the ophthalmologists of the state.

It is always pleasant to look back on a year of activity which has contained as many rewarding accomplishments as this year has brought.

I wish to express my personal gratitude and the committee's appreciation for the invaluable work and effort that the members present and retired have given over the past year.

Respectfully submitted,
Clement C. Clarke

REPORT OF THE JOINT CONFERENCE COMMITTEE
CONNECTICUT PHARMACEUTICAL ASSOCIATION AND CONNECTICUT STATE DENTAL ASSOCIATION

Benjamin Katzin, Chairman

Bradford S. Colwell	Henry J. Messinger
Walter J. Keefe	Fritz M. Meyer

The Joint Committee of the Connecticut State Medical Society, Connecticut Pharmaceutical Association and the Connecticut State Dental Association held four regular meetings and one special meeting during the past year with good representation on the part of all participating groups. At each meeting several invited guests have always been present including officers of the various Societies and frequently members of the State Pharmacy Commission. The Committee continues to function as an effective means of studying common problems as well as to continue to improve the good relationships existing between the three groups involved.

Various problems have been attacked and recommendations made to the parent bodies during the twelve months. The committee has continued its interest in legislation affecting the various groups. It has considered problems referred to it by pharmacists on many occasions for clarification of the position of the allied professions. Considerable discussion resulted from the confusion arising as to the distribution of the influenza vaccine during the recent epidemic and recommendations were forwarded to the State Medical Society.

The committee serves its most useful function in its capacity as a liaison group, shedding light and understanding on the problems which arise concerning the various participating groups. Insofar as it brings into intimate contact representatives of the several professions it affords an excellent opportunity for furthering the objectives of the Connecticut State Medical Society. At the same time the pharmacists particularly are given an opportunity to express their views on problems which arise in their day to day contact with physicians and thus seek better solutions to these problems. The spirit in which these meetings are held continues to provide excellent public relations for the various groups involved.

Respectfully submitted,
Benjamin Katzin

REPORT OF THE ADVISORY COMMITTEE TO WOMAN'S AUXILIARY

Winfield O. Kelley, Chairman

Ralph T. Ogden	Oliver L. Stringfield

The members of this Committee have acted in an advisory capacity and discussed problems as they arose among the members of the Woman's Auxiliary.

Respectfully submitted,
Winfield O. Kelley

REPORT OF COMMITTEE TO STUDY MATERNAL MORTALITY AND MORBIDITY

Carl E. Johnson, Chairman

Eric H. Blank	Hugh K. Miller
C. Lee Buxton	Jessie E. Parkinson
Lewis P. James	Charles H. Peckham
David M. Little, Jr.	A. Rocke Robertson
Bernard F. Mann, Jr.	W. Leslie Smith
Norman C. Margolius	Hoyt C. Taylor
Donald J. McCrann	Archibald W. Thomson, Jr.

Stanley B. Weld

The Committee to Study Maternal Mortality and Morbidity of the Connecticut State Medical Society held seven regular meetings in 1957, all of which were well attended.

Four open sessions were held as follows:

DATE	PLACE
January 28, 1957	Charlotte Hungerford Hospital, Torrington
May 11, 1957	Hartford Hospital, Hartford
May 17, 1957	St. Raphaels Hospital, New Haven
October 29, 1957	Lawrence & Memorial Hospital, New London

At these open meetings the Committee attempts to bring o the physicians in the local communities maternal mortalty case reports which illustrate some of the factors conributing to maternal deaths in Connecticut. All of these neetings were well attended and there was good participaion.

The estimated maternal mortality rate for 1957 is 1.2 per 0,000 live births. (7 maternal deaths).

otal number of cases of deaths among women who were pregnant reviewed by committee..........20
Deaths due to non-maternal causes.......... 5
Deaths due to maternal causes..........13
Unclassified deaths 2

The Committee members were invited to meet with the Committee on Public Health of the Connecticut State Medical Society to discuss "A Project to Develop and Demonstrate Methods for an Evaluation of Obstetrical and Newborn Services of Hospitals in Hartford County, Connecticut." The committee to study maternal mortality and morbidity approved this study and agreed to be one of the sponsors.

SUBCOMMITTEE ON TOXEMIA

The members of this Subcommittee are:

Hugh K. Miller, Chairman

Louis C. Backhus
David F. Conway, Jr.
Howard S. Eckels
Franklin Epstein
Morgan V. Flaherty
Grace V. Gorham
John Henry Grossman
Derick A. January
Frederick C. LaBrecque
John J. Lacava
Bernard F. Mann, Jr.
Luigi Mastroianni
Donald W. Morrison
Willard J. Morse
Jessie E. Parkinson
Vincent Pepe
A. Rocke Robertson
Robert Shreve
Edward J. Sokolski
Hoyt C. Taylor
Roger C. terKuile
Julius G. Weiner
Robert H. Wyatt

The Subcommittee on Toxemia of the Committee to Study Maternal Mortality and Morbidity of the Connecticut State Medical Society held four regular meetings during 1957, all of which were well attended.

Total number of cases of toxemia reviewed..........8
Severe cases of toxemia..........8
Deaths dues to toxemia..........0

In the April 1957 issue of the *Connecticut State Medical Journal* the Subcommittee on Toxemia presented an "Antepartum Toxemia Routine," and a "Postpartum Toxemia Routine." The subcommittee is now in the process of preparing a toxemia record.

INSTITUTE PLANNING COMMITTEE

The members of this committee are:

Charles Lee Buxton, M.D., Professor of Obstetrics and Gynecology, Yale University, School of Medicine, and member of the Committee to Study Maternal Morbidity and Mortality of the Connecticut State Medical Society

Justine Maher, R.N., Chairman of the Subcommittee on Maternal and Child Health, Connecticut League for Nursing

Jessie E. Parkinson, M.D., formerly Maternal and Child Hygiene Physician, Bureau of Maternal and Child Hygiene, Connecticut State Department of Health

Jean Stair, R.N., Assitant Director, New Haven Visiting Nurses Association, Chairman of the Public Health Nursing Section, Connecticut State Nurses Association

Alida L. Warner, R.N., Public Health Nursing Consultant, Bureau of Maternal and Child Hygiene, Connecticut State Department of Health

Winston C. Hainsworth, M.D., practicing pediatrician, and member of the Committee on Perinatal Morbidity and Mortality of the Connecticut State Medical Society

Stuart Knox, Executive Secretary of the Connecticut Hospital Association

Members of various committees of the Connecticut State Medical Society met in 1957 to discuss the possibility of plans for an educational meeting for nurses and physicians in Connecticut on subjects pertaining to maternity and newborn infant care.

During 1957 there was only one regular meeting of this Committee to discuss the progress of the conference "Recent Changes in Maternity and Infant Care" to be held April 3 and 10, 1957, at the Connecticut Light and Power Company, Berlin, Connecticut. Sponsors for this conference were: Connecticut State Medical Society, Connecticut State Department of Health, Connecticut League for Nursing, Connecticut Hospital Association, Connecticut State Nurses Association, Connecticut Chapter of the American Academy of Pediatrics, American College of Obstetricians and Gynecologists, Connecticut Society of American Board Obstetricians and Gynecologists.

The two day conference was well attended by nurses, physicians, social workers, etc., and was enjoyed by everyone. Papers which were presented at the conference are to be edited and published in the *Connecticut State Medical Journal.* The following papers have already appeared: October, 1957 issue, "Infant Resuscitation," by Virginia Apgar, M.D.; November, 1957 issue, "Psychosomatic Reactions Associated With Pregnancy," by Edward C. Mann, M.D.

Respectfully submitted,
Carl E. Johnson

REPORT OF ADVISORY COMMITTEE TO THE STATE COMMISSIONERS OF WELFARE AND FINANCE AND CONTROL

Edwin R. Connors, Chairman

Ettore F. Carniglia
Mark A. Gildea
Maxwell Lear
Donald R. Morrison
Leonard Parente
J. Harold Root
Edwin F. Trautman
William H. Upson
Harold D. VonGlahn

The committee met on May 29, 1957 at which time Mr. Marcus Baker, forms management supervisor of the Department of Finance and Control, demonstrated and discussed the activity required by physicians, the forms used, and the general procedure involved in the Department's new medical bill processing that was to become effective on July

1, 1957. This plan was approved by the committee after considerable discussion.

The medical director presented a series of bills for professional services rendered by two physicians for study of the committee and there was general discussion of the patterns developed in the review of these bills.

The chairman introduced a series of correspondence from a physician to him and the Medical Director and to the Executive Secretary of the Connecticut State Medical Society and a feasible solution was attained which would be satisfactory to the physician and patient involved.

On December 17, 1957 the committee met and since a number of letters of complaint from physicians and from one county medical association had been received in regards to the new billing forms introduced by the Department of Finance and Control for use by physicians in care of beneficiaries of the State Welfare program, this problem was thoroughly discussed. The committee was of the opinion that the State should take some action to relieve physicians of the extra burden entailed in the current procedure occasioned by the necessity of preparing two forms (W500 and W501) for each charge and of preparing a separate bill for each patient, especially when there were several patients in the family on ADC. The reasons for these requirements were explained by the Medical Director. The committee agreed to the necessity for a separate bill for each patient but felt strongly that the duplication of data on forms W500 and W501 be corrected. Several suggestions for elimination of one or the other forms were advanced and the following recommendations were made:

1. That the procedure for physician's billing be revised by the Department in consultation with the Department of Finance and Control and with consultation from International Business Machines, Inc.

2. That an effort be made to revise form W500 in its present size so that it could be used as the entire bill, eliminating form W501.

3. That the Medical Director reply to the county association as a progress report.

An agreeable settlement was achieved in the case of a complaint of the Welfare Department referred to a county medical association with regards to the question of uncooperative conduct on the part of a physician.

The committee was asked to discuss the problem brought out by the Mental Health Department concerning eligibility of persons on extended visits reported in meetings with Dr. Bellis and Mr. Rockmore. Present State plans were reported and discussed. It was the recommendation of the committee that under present Federal laws our State plan could not be further modified to liberalize eligibility of persons on extended leave who were patients in medical institutions for further treatment of mental disease.

The committee was concerned in the present status of Medical and Social Agency cooperation in the new Adoption Law of the State and an article on the subject is to be published in the *Connecticut State Medical Journal* in the near future.

The Convalescent Care of Children was also discussed by the committee and the present status reported with a further report to be made at a future meeting.

The opinion of the committee was sought by the Medical Director in the use of psychologists as regards: 1. Should psychologists be used for mental testing when clinic facilities are not available? 2. Should interpretations of such tests by the psychologists be (a) sought (b) accepted? 3. Should private psychologists be allowed to treat State beneficiaries or wards as the principal therapists or only under supervision of a psychiatrist?

The recommendations of the committee were: 1. Privately practicing psychologists are capable of administering and scoring mental tests. 2. (a) Interpretation of such tests should not be requested except from a physician, preferably a psychiatrist. (b) When furnished as part of a report of a mental test, the Medical Director should give to the interpretation furnished such weight as in his clinical experience is warranted by the factual portion thereof. 3. Therapy should be performed by privately practicing psychologists only under the direction and supervision of a psychiatrist.

Respectfully submitted,
Edwin R. Connors

REPORT OF THE CONFERENCE COMMITTEE WITH CONNECTICUT STATE DENTAL ASSOCIATION

Brae Rafferty, Chairman

David J. Cohen	C. Henry Huvelle
Cornelius S. Conklin	Edward T. Wakeman

The Conference Committee with the Dental Association has continued to hold meetings at irregular intervals throughout the year. The meetings were informal, were dinner meetings, and were addressed by one or more persons on a topic of particular interest to the members of both the Dental and Medical Societies. Although much discussion and exchange of ideas has resulted, no formal resolutions from the Conference Committee to either of the Societies has resulted, at present.

Through the course of the past year, the members from the dental side have been changed so that there is now a completely new dental membership on the Committee.

Respectfully submitted,
Brae Rafferty

REPORT OF THE COMMITTEE TO STUDY PERINATAL MORBIDITY AND MORTALITY

Roswell D. Johnson, Chairman

William K. Bannister	Louis Guss
Ronald S. Beckett	Winston C. Hainsworth
Martha L. Clifford	C. Stanley Hitchins
David J. Cohen	Charles A. Murphy
Joseph A. Fiorito	Charles H. Peckham
Robert L. Fisher	Andrew F. Turano

The Committee on Perinatal Mortality has held regular monthly meetings at the State Society Headquarters.

As noted in the report last year, the Committee is undergoing a transition in its orientation and is now making progress in new fields of education in perinatal problems.

The Committee has invited to its meeting as "permanent guests" at least one physician from each of the licensed maternity hospitals in the state. Due to various reasons, we regret that not all hospitals have sent representatives, but the response on the whole has been most gratifying and the contributions of some of the "guests" have been outstanding. This procedure greatly broadens the base for study and dissemination of information.

The Committee has finally started its series of case reports on perinatal mortality in the *Journal*. These cases are strictly anonymous, and are chosen to illustrate salient problems. A condensed version of the Committee discussion will be included as well as the opinion of an expert consultant chosen particularly for each case for his specialized knowledge. The purpose of the reports is educational.

The Committee hopes to establish a program of panel discussions on perinatal mortality in as many hospitals as possible. These may take the format of review-type symposia, but preferably a typical perinatal mortality meeting utilizing cases of the host hospital or possibly those of a distant hospital to encourage full discussion.

The Obstetrical Statistical Cooperative is busy in the Hartford area in studying perinatal mortality. By next year some early conclusions may be forthcoming.

Respectfully submitted,
Roswell D. Johnson

REPORT OF ADVISORY COMMITTEE ON MEDICARE PLAN

Harold M. Clarke, Chairman

Henry A. Archambault	Richard B. Elgosin (resigned)
Morton Arnold	Hugh K. Miller
Willard E. Buckley	R. Bruce Thayer, Jr.
John E. Cartland, Jr.	Vincent J. Turco
Hugh L. Dwyer	

$294,063.90 has been paid under the MEDICARE program to doctors in Connecticut since it went into effect on December 7, 1956. Payments have been made by Connecticut Medical Service which acts as the fiscal administrator for the Connecticut State Medical Society under regulations set down by the Department of Defense. This amount represents payment for 4,134 cases, an average of 275.6 claims per month, at average payment of $71.13 per case. Increased activity in the program is shown by the following: first five months of operation 620 claims, second five months of operation 1,438 claims, and third five months 2,076 claims.

The Dependents' Medical Care program is authorized in P.L. 569 of the 84th Congress and became effective on December 7, 1956. As is the case with all Acts passed by Congress this law has to be implemented by regulations and directives which have been revised and increased as time has gone on. In February 1957 the Society published and mailed to all Connecticut physicians "CONNECTICUT Schedule of Allowances for Physicians' Fees," the "Yellow Book." From time to time since then pertinent new regulations have been published in the *State Medical Journal* so that physicians of Connecticut could be informed.

The original contract between the Connecticut State Medical Society and the Office of Dependents' Medical Care of the Surgeon General's Office would have expired on June 30, 1957 but it was extended by mutual agreement without broad change until May of 1958 at which time the contract will be renegotiated. When the report of MEDICARE was presented to the House of Delegates at its semi-annual meeting in Hartford on December 11, 1957 the question was asked as to who would constitute the Connecticut negotiating team for the renegotiations in May. At that time the committee had not been designated but it can now be stated that it will consist of Harold M. Clarke, New Britain, surgery; Hugh K. Miller, Stamford, obstetrics and gynecology. The appointed negotiator for medicine has withdrawn. The secretary of the Society, serving as Coordinator of the plan will accompany the negotiators. It is anticipated that there will be changes in the fee schedule and certain other details of the contract.

If misunderstanding still exists in the minds of some concerning the role of Connecticut Medical Service in the MEDICARE program it should be pointed out again that Connecticut Medical Service is acting solely as a fiscal administrator for the Connecticut State Medical Society. Connecticut Medical Service did not write the rules and regulations and cannot change them. It pays out its own money on claims to doctors and then looks to the government for reimbursement which can be expected only if claims have been properly completed in exact accord with regulations. This, and this only, is the reason why many claims have to be returned to physicians for completion or correction.

Many comments have been received concerning the complicated nature of Form DA 1863. The Office of Dependents' Medical Care is aware of the problem presented by this form and an effort has been long under way to improve it but as yet the forms are not available.

Connecticut Medical Service and the Connecticut State Medical Society receive compensation for their services as the fiscal agent and the coordinator of the plan but only for reimbursable costs as defined by the government.

Physicians do not have to participate in the plan and make no contractual relations to do so. On the whole it seems to us intimately connected with the program that it has operated smoothly in Connecticut. It is anticipated that the number of claims will increase steadily at least for a time and then will, perhaps, level off unless the armed forces of our country are increased. It appears that in some form it will become a permanent part of the national pattern for providing a part of national medical care.

Respectfully submitted,
Creighton Barker, Coordinator
Medicare for Connecticut

REPORT OF THE REPRESENTATIVES OF THE CONNECTICUT HEALTH LEAGUE

Clement F. Batelli, Chairman

Sue T. Gould S. Allison Rose

Two meetings of the Connecticut Health League were held during the year, one on June 19 and the annual meeting on January 15, 1958.

At the June meeting, in addition to approval of the treasurer's report, certain changes in the constitution and by-laws were adopted. A nominating committee of nine members with Mrs. Ira Hiscock as the chaiman, was appointed.

A panel consisting of Dr. Harold Mahony, Dr. Stanley E. Wedburg and Dr. William O. Cummings, discussed the subject "Selling Health Careers." Mr. Harry Olson served as moderator.

At the annual meeting in January, the treasurer noted that the bank balance on January 15, 1958 was $1,102.27, an increase of $497.38 over that of the previous January. The figure included $.85 dues paid in advance for 1958.

The nominating committee presented the following slate of officers and eighteen directors and members at large who were unanimously elected.

President: Dr. Reginald C. Edson.

Vice-Presidents: Mrs. Douglass O. Burnham, Dr. James R. Miller.

Secretary-Treasurer: Dr. Harold S. Barrett.

After the business meeting, a panel discussion was held on the subject "Needs and Services for the Chronically Ill and Aged—the task of Two New Commissions."

Dr. Reginald C. Edson was moderator and the participants, Dr. Paul S. Phelps, executive director, Commission on Tuberculosis and Other Chronic Diseases, and Donald P. Kent, PH.D., secretary, Commission on Services for Elderly Persons.

Dr. Paul S. Phelps described the organization of the Commission on Tuberculosis and Other Chronic Diseases, its make up, the number and location of the state hospitals providing service in this special program. He also described the various steps in getting a patient hospitalized. All the hospitals were to be used for chronic cases who needed temporary definitive treatment. Patients needing rehabilitation services were to be sent to Woodruff.

Dr. Donald Kent spoke on the developments that have occurred during the past year in the area of gerontology. He noted that with a very limited budget, the commission could only study the services now provided the elderly with regard to employment, housing, health, recreation, etc.

The Commission has a short range plan in which it is hoped the following projects may be carried out:

(1) Publish a quarterly bulletin.

(2) Make a series of short studies on (1) Cataloging services. (a) Book on aging.

(3) Assist the Governor and the State on problems dealing with aging.

(4) Have series of public meetings including workshops.

The Commission also has a long range program which it hopes to put into operation. This consists of:

(1) To have a full time independent staff.

(2) To assist local public and private agencies.

(3) Do research.

Respectfully submitted,
Clement F. Batelli

REPORT OF THE CONFERENCE COMMITTEE WITH STATE BAR ASSOCIATION

Thomas M. Feeney, Chairman

John D. Booth
Peter V. C. Dingman
Daniel F. Levy
Averill A. Liebow
John F. Paget
Oliver L. Stringfield
Harold S. Wright

Since the last report to the House of Delegates, your Committee has been engaged in several interesting projects.

At the request of the Joint Conference Committee, the Hartford County Bar Association and the Hartford County Medical Association held a joint meeting of their respective members on May 6, 1957. The response of some two hundred fifty lawyers and physicians indicated that there was an interest on the part of each profession in exploring mutual problems. It has been the hope of the Committee that we might repeat the Hartford-type meeting in other Counties. However, before doing this, each Municipal and County Medical and Bar Association was contacted by letter, asking that local committees be organized. It was with pleasure this Committee noted that in certain localities throughout the State, such as Danbury, Stamford, Waterbury and Bristol, such Committees are in operation. Several of the Counties have established Liaison Committees with the County Bar Association.

The Code of Cooperation adopted a year ago has been received with enthusiasm.

During the past year, Allyn L. Brown, Esq., of Norwich, terminated a very fruitful term of years of service to the Committee and his place has been taken on the Committee by the Honorable James F. Kennedy of Hartford. When Allyn Brown left the Committee, the chairman took the occasion to express the appreciation for his service to the Joint Conference Committee in a letter to the Honorable James Cooper, President of the Connecticut State Bar Association.

Respectfully submitted,
Thomas M. Feeney

REPORT OF THE CONNECTICUT COMMITTEE FOR THE AMERICAN MEDICAL EDUCATION FOUNDATION

William G. H. Dobbs, Chairman

Fairfield—Robert H. Abrahamson
Hartford—Charles E. Jacobson, Jr.
Litchfield—G. Robert Downie
Middlesex—Louis O. LaBella
New Haven—Orvan W. Hess
New London—Paul J. Gerity
Tolland—Marjorie A. Purnell
Windham—Mervyn H. Little

The 1957 Connecticut AMEF campaign to aid the medical schools raised $15,372 from 623 physicians and the Woman's Auxiliary to the State Medical Society, which contributed $2,021 of the total amount.

This gave eleventh place to our state in the national campaign sponsored by the American Medical Education Foundation. First place in the campaign was taken by Illinois physicians who contributed $199,117 through an assessment program for 9,219 association members. Second place was taken by California, also through assessments, $165,105 from 14,685 members. Other leading states ranked in the following order: Pennsylvania, $64,764—2,066 contributors; New York, $42,501—3,013 contributors; Minnesota, $36,846—1,604 contributors; Ohio, $33,142—717 contributors; Texas, $29,717—1,209 contributors; Colorado, $23,997—

832 contributors; Indiana, $19,628—667 contributors; and New Jersey, $17,348—158 contributors.

The Connecticut campaign actually was a series of campaigns conducted by active AMEF committees of the Society's component county associations. Since the chairmen of these committees are members of the state AMEF committee, liaison in planning and coordinating campaign activities proved practical and effective.

The following amounts were raised in each of the county campaigns: Hartford County $6,656—350 contributors; New Haven $2,913—109 contributors; Fairfield $2,211—86 contributors; Litchfield $546—27 contributors; New London $320—11 contributors; Middlesex $309—11 contributors; Tolland $245—12 contributors; and Windham $105—4 contributors.

The 1957 national campaign raised almost one million dollars, the exact amount being $974,645. This represented contributions from physicians of $541,528 and from other sources as follows: Woman's Auxiliary, $113,540; American Medical Association, $1000; other organizations, $214,369; and other individual contributors, $5,206.

Dr. Charles E. Jacobson, chairman of the AMEF Committee of the Hartford County Medical Association, and the chairman of this committee were both invited again this year to participate in the Foundation's national annual planning conference and this was attended in Chicago last January.

In addition to the campaign contributions reported herein, Connecticut and other states also will receive credit for the contributions made by physicians to the alumni funds of their medical schools. This information is not yet available, but it is anticipated it may raise total contributions to $50,000, based on previous experience.

The committee is currently engaged in a study of AMEF assessment programs. These are now in effect in eight states: Illinois, California, Utah, Nevada, Idaho, New Jersey, Arizona and Indiana. Information at hand indicates that while per capita contributions have decreased, the total amount raised has been considerably raised by the assessment approach, which aims at 100 per cent participation. If the findings of the present study prove the soundness of this procedure, a similar program may be recommended for Connecticut.

The committee deeply appreciates the continuing support of Connecticut physicians in this valuable program to aid our medical schools.

Respectfully submitted,
William G. H. Dobbs

REPORT OF THE COMMITTEE ON ACCIDENT PREVENTION

Louis Spekter, Chairman

Harold A. Bergendahl
Alfred L. Burgdorf
Clement C. Clarke
Gaert S. Gudernatch
John F. Kilgus
Bernhard A. Rogowski
William M. Stahl, Jr.,
Oliver L. Stringfield

The Committee on Accident Prevention was established by the Council of the Connecticut State Medical Society in the spring of 1956. The purpose of the committee was stated as follows:

"The purpose of the committee is to study the causes of personal accidents in Connecticut and in cooperation with the Committee on Accident Prevention of the Connecticut Chapter of the American Academy of Pediatrics and similar committees from other organizations, to make recommendations to prevent accidental injuries among the people of the state."

The initial meetings of the committee were concerned with orientation of the committee members to the various problems of accidents in Connecticut and with a review of the proposed legislation with respect to three bills then before the Connecticut General Assembly: An Act Concerning the Labeling of Hazardous Substances; An Act Concerning the Establishment of a State Poison Information Center; and An Act Concerning Tests for Operators of Motor Vehicles While Under the Influence of Liquors or Drugs. The committee endorsed these.

The interest of the committee centered quickly upon the medical aspects of motor vehicle accidents. With this in view, representatives of the various state departments were invited to discuss motor vehicle accidents.

At least two points became obvious:

The role of the physician in the prevention of motor vehicle accidents had not been sufficiently defined.

There is a paucity of information on the medical aspects of motor vehicle accidents.

To clarify somewhat these two points, the committee has prepared a statement that would encourage physicians to extend their preventive role into the field of motor vehicle accidents. It was the opinion of the committee that it might be helpful if hints were available to physicians as to the correlation of clinical symptomatology with hazards in driving. To this end a suggested list of physical and emotional conditions was set up.

The committee was invited to assign a member to the State Coordinating Committee on Highway Safety (a committee of official state agencies). This assignment has been made.

Respectfully submitted,
Louis Spekter

REPORT OF THE CONNECTICUT ADVISORY COMMITTEE ON FOOD AND DRUGS

This committee acts as an advisory committee to the Food and Drug Commission and the undersigned represents the Connecticut State Medical Society as a member. The proceedings are regularly published in the *Connecticut State Medical Journal* so that no report is considered to be necessary.

Respectfully submitted,
Hugh L. Dwyer

REPORT OF THE MEDICAL ADVISORY COMMITTEE TO THE CEREBRAL PALSY ASSOCIATION

John F. Paget, *Chairman*

Cole B. Gibson　Roswell D. Johnson
Thomas F. Hines　Ward J. MacFarland

This committee was formed in 1956 in an effort to assist the National, State and County Cerebral Palsy organizations in their progress in this state. It has, as has been pointed out, a stand-by advisory committee with its principle aim that of assisting the Cerebral Palsy effort at the state level. In Connecticut at the present time the treatment of this disease is handled, for the most part, as a county or municipal problem.

There have been no new problems brought before this committee and the necessity for a committee meeting has not arisen. Should the State Cerebral Palsy Association request advice, the committee stands always in a position to give this.

Respectfully submitted,
John F. Paget

REPORT OF THE THOMAS PATRICK MURDOCK SCHOLARSHIP FUND COMMITTEE

Israel S. Otis, Chairman

C. Louis Fincke　Cole B. Gibson
Mr. Lester E. Shippee

At the Annual Meeting of the House of Delegates in 1957, a resolution was passed that the Connecticut State Medical Society establish and sponsor a fund to be known as the Thomas Patrick Murdock Fund. It was further proposed that the establishment and administration be placed in the hands of the Council by authority of the House of Delegates, with the power to proceed along appropriate lines; and that the Council report its progress to the House at the next semi-annual meeting.

In accordance with this resolution as adopted, the Council appointed a committee to investigate the mechanics of the organization of such a fund.

A report was submitted by the committee at the last semi-annual meeting for your information.

In short, it was noted that a trust fund named appropriately The Thomas Patrick Murdock Scholarship and Loan Fund had been arranged with the Meriden Trust and Safe Deposit Company as custodian of the fund. Further, it was reported that in accordance with the trust agreement a rotating committee of five was designated for the duty of selecting candidates for scholarship or loan aid. The committee consists of three physicians elected by the Council, one member designated by the president of the University of Connecticut and one member to be designated by the president of Yale University. This committee at present consists of Dr. I. S. Otis for the 5 year term, Dr. Louis Fincke for the 4 year term, Dr. Cole Gibson for the 3 year term, Mr. Lester Shippee for the 1 year term. As of the present date the president of Yale University has not designated his selection.

Before any campaign with respect to the solicitation of funds could appropriately be conducted, it was deemed necessary that a ruling be obtained from the Income Tax Division, United States Treasury Department as to the question of deductability for income tax purposes of amounts donated to the fund. Application for such a privilege was made early last Fall and the necessary ruling for approval was received in March.

The Committee is now in process of arranging the mechanics of local committees and other factors towards an active campaign for funds and is hopeful that the members of the Connecticut State Medical Society, as well as many other individuals interested in the education of our youth towards better medicine, as well as the many who would like to perpetuate the memory of Dr. Thomas Patrick Murdock will interest themselves and view the Scholarship and Loan Fund as a most worthy effort.

Respectfully submitted,
Israel S. Otis

REPORT OF THE COMMITTEE ON INSURANCE

M. David Deren, Chairman

Norman J. Barker　Philip M. Cornwell
Williard E. Buckley　E. Roland Hill
Robert H. Jordan

An organization meeting was held on February 5, 1958. The committee will receive, consider and make recommendations concerning all group proposals of insurance for members of the Society.

Respectfully submitted,
M. David Deren

Seward and Monde
Certified Public Accountants

205 Church Street
New Haven 10, Connecticut

The Connecticut State Medical Society
New Haven, Connecticut

We have examined the balance sheet of The Connecticut State Medical Society as of December 31, 1957 and the related statements of income and surplus for the year then ended, have reviewed the system of internal control and the accounting procedures of the Society, and without making a detailed audit of the transactions, have examined or tested accounting records of the Society and other supporting evidence by methods and to the extent we deemed appropriate.

General Fund:

Cash in banks, reconciled and confirmed by direct correspondence with the depositories, is accounted for as follows:

Commercial accounts:	
The Second National Bank of New Haven—Journal collections	$ 4,848.15

The Second National Bank of New Haven—Journal revolving fund	5,000.00	
The Second National Bank of New Haven—Secretary's office revolving fund	5,000.00	
The Second National Bank, Trust Department:		
Income cash account	2,963.10	
Principal cash account	74.29	
		$17,885.54
Savings accounts:		
Connecticut Savings Bank of New Haven	$11,673.81	
New Haven Savings Bank of New Haven	11,985.16	
National Savings Bank of New Haven	10,530.39	
Chelsea Savings Bank of Norwich	273.81	
Milford Savings Bank of Milford	13,260.97	
		47,724.14
Total		$65,609.68

The Second National Bank of New Haven confirmed directly to us that as of December 31, 1957 they held the following securities as agent for the Treasurer of The Connecticut State Medical Society:

FACE VALUE	RATE AND MATURITY		BOOK VALUE	MARKET VALUE
United States Treasury Bonds:				
$2,000	3½%	1960	$2,000.00	$2,038.75
7,000	2½%	1969	6,795.73	6,619.37
5,000	2½%	1970	5,000.00	4,721.87
3,000	2½%	1971	2,979.11	2,831.25
Province of Canada Bonds:				
3,000	Province of Nova Scotia 3⅞% Deb. due March 15, 1964		2,988.75	2,932.50
3,000	Province of Saskatchewan 3⅛% due February 1, 1966		3,021.60	2,820.00
Stock:				
50 shares Celanese Corp. of Amer. Ser. A 4½% cum. preferred			5,181.25	2,812.50
Total			$27,966.44	$24,776.24

Dues receivable of $2,670 are segregated by counties as follows:

COUNTY	AMOUNT
Fairfield	$ 750
Litchfield	120
Middlesex	150
New London	60
Hartford	870
New Haven	690
Tolland	....
Windham	30
Total	$2,670

Accounts receivable—journal of $7,714.10 is due from advertisers.

Accounts payable—journal of $50 represents amounts due for printing expenses in connection with reprints.

The following is a comparison of budgeted and actual general expenses:

	ORIGINAL BUDGET	ADDITIONAL ALLOTMENTS APPROVED BY COUNCIL DURING THE YEAR	TOTAL BUDGET ALLOTMENTS	ACTUAL	ACTUAL OVER OR (UNDER) BUDGET
Secretary's office	$ 33,665.32	$ 2,000.00	$ 35,665.32	$ 33,755.53	($1,909.79)
Treasurer's office	6,895.00	100.00	6,995.00	6,516.45	(478.55)
General and contingent	9,875.00	30.00	9,905.00	8,897.35	(1,007.65)
Public relations	17,700.00	....	17,700.00	17,443.14	(256.86)
Committee allotments	5,325.00	268.34	5,593.34	3,843.62	(1,749.72)
Building maintenance	11,075.00	....	11,075.00	11,149.62	74.62
Journal	44,090.00	10,443.74	54,533.74	54,603.74	70.00
Totals	$128,625.32	$12,842.08	$141,467.40	$136,209.45	($5,257.95)

Annual Meeting Fund:

Cash was confirmed directly.

Gurdon W. Russell Fund:

Cash was confirmed by direct correspondence and the Second National Bank of New Haven confirmed directly to us that as of December 31, 1957 they held the following fund securities as Agent for the Treasurer of the Connecticut State Medical Society:

FACE VALUE	BOOK VALUE	MARKET VALUE
$600 New York, New Haven and Hartford Railroad Co. 4%—due 2007	$ 397.62	$ 252.75
$900 New York, New Haven and Hartford Railroad Co. 4½%—due 2022	308.64	201.37
$500 New York, New Haven and Hartford Railroad Co. 5% conv. pfd. stk., Series A	128.04	73.75
$1,000 Boston and Albany Railroad Company, 4¼% improvement bonds, due August 1, 1978	820.00	550.00
$5,000 U. S. Treasury bonds, 2¼% due 1959	5,000.00	4,957.81
Totals	$6,654.30	$6,035.68

O. C. Smith Fund:

We confirmed the principal and income cash by direct correspondence.

Building Fund:

Cash of $13,260.97 representing the unused portion of an advance of $22,229.31 made by the General Fund in 1956 to supplement contributions received to finance the construction of the Society's new building addition was returned to the General Fund during the year.

A statement of source and application of funds in connection with the construction of the Society's new building addition covering the period from the inception of the project in 1956 to its completion early in 1957 is summarized as follows:

Funds provided:		
Contributions from members		$35,410.00
Proceeds—sale of equipment		25.00
Cash transferred from Annual Meeting Fund		15,358.82
Net cash transferred from General Fund		8,968.34
Total funds provided		$59,762.16
Funds applied:		
New building addition		$53,645.12
Building equipment		5,002.51
Expenses in connection with project:		
Stationery and postage	$554.23	
Sundry building supplies and expense	560.30	
		1,114.53
Total funds applied		$59,762.16

During the year funds have been transferred from the general funds to the funded reserve for depreciation. Cash of $13,214.38 on deposit in the Connecticut Savings Bank was confirmed directly.

Clinical Congress:

Cash was confirmed directly by the depositories.

General:

The secretary's office has acted as collection agent for The American Medical Association's dues for the year 1957. At December 31, 1957 all collections to that date had been remitted to The American Medical Association.

In our opinion, the accompanying balance sheet and statements of income and surplus present fairly the position of The Connecticut State Medical Society at December 31, 1957, and the results of its operations for the year, in conformity with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

Seward & Monde,
Certified Public Accountants

New Haven, Connecticut
March 21, 1958

Balance Sheet, December 31, 1957

GENERAL FUND

ASSETS

Cash	$ 65,609.68
Investments (Market value $24,776.24)	27,966.44
Dues receivable—1957	2,670.00
Accounts receivable—*Journal*	7,714.10
Automobile emblems on hand	465.00
Prepaid insurance	434.68
Total	$104,859.90

LIABILITIES

Accounts payable:	
Journal	$ 50.00
Accrued commissions—1957 dues	10.50
Surplus	104,799.40
Total	$104,859.90

ANNUAL MEETING FUND

ASSETS

Cash	$ 8,324.22
Prepaid expenses—1958 annual meeting	42.80
Total	$ 8,367.02

LIABILITIES

Surplus	$ 8,367.02
Total	$ 8,367.02

SPECIAL FUNDS

ASSETS

Gurdon W. Russell Fund:		
Cash	$ 438.70	
Investments (market value $6,035.68)	6,654.30	
		$ 7,093.00
O. C. Smith Trust Fund:		
Principal cash	$ 1,000.00	
Income cash	344.04	
		1,344.04

Building Fund:		
Land	$ 12,270.31	
Building and equipment	139,901.20	
	152,171.51	
Cash-savings account (funded reserve for depreciation)	13,214.38	165,385.89
Clinical Congress:		
Cash		$ 3,776.88
Total		$177,599.81
Grand total		$290,826.73

LIABILITIES

Gurdon W. Russell Fund—capital		$ 7,093.00
O. C. Smith Trust Fund—capital		1,344.04
Building Fund:		
Reserve for depreciation	$ 13,214.38	
Capital	152,171.51	
		165,385.89
Accounts payable	1.50	
Clinical Congress—capital	3,775.38	
		3,776.88
Total		$177,599.81
Grand total		$290,826.73

Statement of Income and Surplus
General Fund
Year Ended December 31, 1957

Income:		
Dues earned	$87,965.00	
Less, Commissions paid	325.50	
		$ 87,639.50
Interest and dividends on investments		1,911.28
Rental income		4,135.00
Income from collection of AMA dues		614.15
Gross income		$ 94,299.93
Expenses:		
Secretary's office	$33,755.53	
Treasurer's office	6,516.45	
General	6,158.77	
Contingent fund	2,738.58	
Public relations	17,443.14	
Committee allotments	3,843.62	
Building maintenance	11,149.62	
		81,605.71
Excess of general income over expenses		$ 12,694.22
Less, Excess of expenses over income—*Journal* operations		4,391.08
Net income		$ 8,303.14

Surplus, January 1, 1957	$83,235.29	
Add, Reimbursement by Building Fund of unused portion of amount advanced from General Fund for construction of new building addition	13,260.97	
		96,496.26
Surplus, December 31, 1957		$104,799.40

Details of Expenses
Year Ended December 31, 1957

Secretary's Office:			
Personal Services		$34,401.90	
Less, Transfer of expenses to:			
Treasurer's office	$4,000.00		
Journal office—extra help	60.00		
Committee expense	446.50		
Outside addressing	60.00		
Collection AMA dues	1,000.00		
Medicare	260.75		
		5,827.25	
			$28,574.65
Executive secretary expense			1,462.12
Executive secretary expense—prior years			710.32
Office supplies			622.24
Printing and postage			838.05
Automobile expense			733.37
Telephone and telegraph			245.03
Bank charges			22.67
Publications			58.35
Social security taxes			392.74
Miscellaneous			95.99
Total			$33,755.53

Treasurer's Office:	
Clerical and bookkeeping services	$ 4,000.00
Auditors	645.00
Fiscal agent	358.00
Postage and printing (Collection of society dues)	230.22
Collection of AMA dues	1,000.00
Postage and printing (Collection of AMA dues)	226.60
Telephone and telegraph	26.85
Miscellaneous	29.78
Total	$ 6,516.45
General:	
Chairman of Council	$ 300.00
President of Society	300.00
Council	661.11
Delegates to AMA convention	871.50
Blue Cross premium for employees	405.00
Employees pension fund	3,621.16
Total	$ 6,158.77
Contingent Fund:	
Semi-annual meeting—House of Delegates	$ 320.96
Social security mailing—House of Delegates	386.02

Civil Defense conferences	335.27
Staff attendance—AMA meeting	216.99
Dues—Conference of Presidents	75.00
Contribution to Nutrition Council	50.00
Murdock Scholarship Fund	255.36
Installation of door	259.00
Engrossing charter	135.00
Asian flu mailing	214.50
Fifty year pins	96.79
Reprints of By-Laws	66.50
President's picture	30.00
Representative to School Health Conference	163.99
AMA directory	30.00
Committee on Emergency Medical Service	14.38
Dues—Connecticut Health League	10.00
Dues—Nutrition Council	5.00
Miscellaneous	73.82
Total	$ 2,738.58

Public Relations:

Personal services		$12,295.00
Printing and postage	$1,850.26	
Publications and reprints	135.75	
Clipping service	216.20	
Telephone and telegraph	220.98	
Travel and expense—AMA meetings	692.05	
Meetings of Public Relations Committee	571.80	
Health Exhibits—County Fairs	846.58	
Television productions	281.29	
Supplies and miscellaneous	175.81	
Social Security taxes	157.42	
		5,148.14
Total		$17,443.14

Committee Allotments:

Public health	$ 342.91
National legislation	27.50
State legislation	349.18
Industrial health	2.42
Pharmacy joint committee	158.18
Medical care of veterans	211.75
Council of New England State Medical Societies	279.90
Dental conference committee	139.34
Rural health	182.55
Cancer coordinating committee	18.21
Committee on food, drugs, cosmetics	117.57
Honorary members	24.00
Maternal mortality and morbidity	54.10
Hospital committee	329.32
Professional relations	8.10
Medical education and licensure	158.56
Committee on third party payments	8.00
AMEF campaign	541.49
Advisory committee—State Agencies	186.62
Conference committee — Bar Association	336.76
Committee on Accident Prevention	62.97
Cornell crash injury committee	25.00
Perinatal morbidity and mortality	54.45
Committee on eye care	194.14
Cooperation committee — Yale	27.51
Mental health	3.09
Total	$ 3,843.62

Building:

Taxes	$ 3,206.72
Custodial services	1,411.20
Insurance	464.93
Electricity, gas and water	1,174.23
Fuel	807.90
Maintenance of grounds	514.51
Depreciation and obsolescence	2,200.00
Supplies	283.85
Telephone	943.91
Repairs and replacements	142.37
Total	$11,149.62

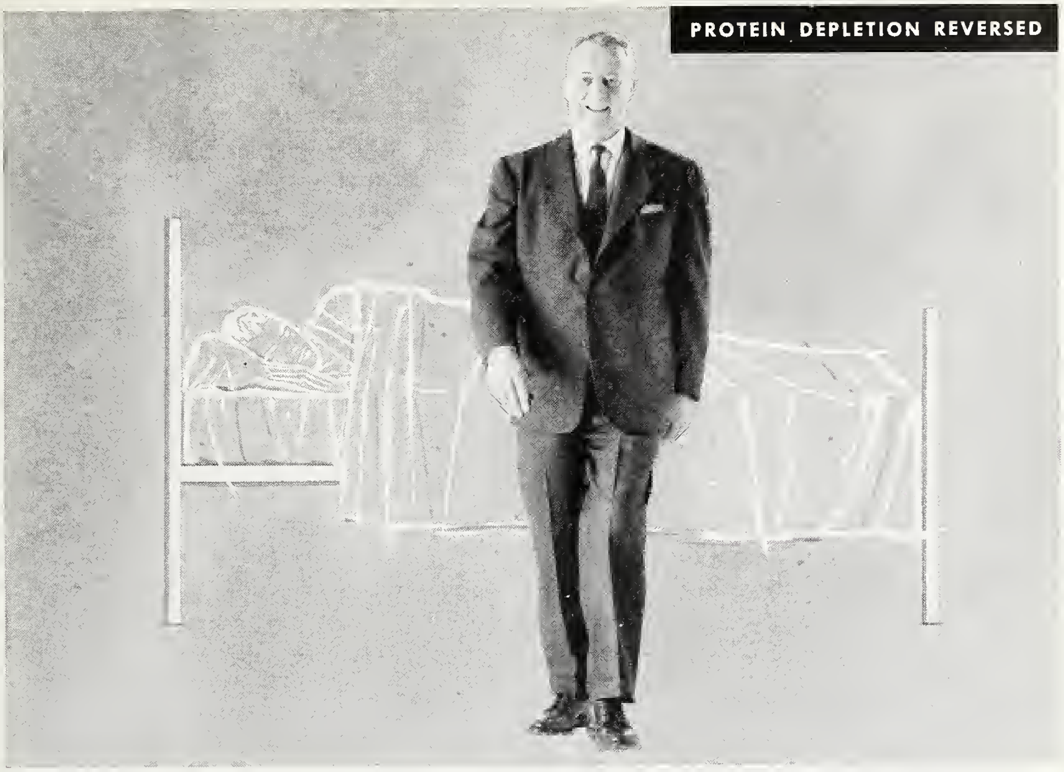
Statement of Journal Operations
Year Ended December 31, 1957

Income:

Advertising (net of commissions)	$43,183.92	
Subscriptions	1,174.85	
Reprints	5,394.56	
Electrotypes	209.91	
Single copy	81.78	
Roster book	150.00	
Miscellaneous	17.64	
		$50,212.66

Expenses:

Personal services		$10,910.35	
Manufacturing cost:			
Printing	$38,075.73		
Postage and handling	618.82		
Electrotypes	825.86		
Reprints	3,070.98		
		42,591.39	
Other:			
Printing and postage	$ 67.19		
Telephone	43.66		
Office supplies	146.80		
Sales tax	22.25		
Clerical assistance	75.00		
Travel expense — editor	272.85		
Social Security taxes	179.96		
Editorial Board dinner	131.80		
Miscellaneous	162.49		
		1,102.00	
			54,603.74
Excess of expenses over income			$ 4,391.08



the clinical results are **positive** when

NILEVAR® restores positive nitrogen balance

The anabolic effects of Nilevar are quickly manifest both to the patient and to the attending physician.

When loss of nitrogen delays postsurgical recovery or stalls convalescence after acute illness and in severe burns and trauma, Nilevar has been found to effect these responses:

- **Appetite improves**
- **Weight increases**
- **The patient feels better**
- **The patient recovers faster**

Similarly Nilevar helps correct the "protein catabolic state" associated with prolonged bed rest in carcinomatosis, tuberculosis, anorexia nervosa and other chronic wasting diseases.

Nilevar is unique among anabolic steroids in that androgenic side action is minimal or absent in appropriate dosage.

Nilevar (brand of norethandrolone) is supplied as tablets of 10 mg. and ampuls (1 cc.) of 25 mg. The dosage of both forms is from 10 to 50 mg. daily.

SEARLE

Research in the Service of Medicine.
G. D. SEARLE & CO., CHICAGO 80, ILLINOIS

Statement of Income and Surplus
Annual Meeting Fund
Year Ended December 31, 1957

Income:		
Exhibits		$10,690.00
Expenses:		
Program Committe and Local Committee on arrangements	$ 33.78	
Telephone	36.30	
School rental and janitor service	400.00	
Printing and postage	1,595.00	
Badges	87.60	
Exhibit decorator, rentals and equipment	1,530.15	
Meeting operating expenses	303.62	
A.M. House of delegates	504.55	
Lunches and dinner expense (guests and entertainment)	127.00	
Extra help, clerical, police, firemen	686.00	
Speakers and visiting delegates	928.12	
Council dinner	572.27	
Photographs	46.95	
		6,851.34
Excess of meeting income over meeting expenses		3,838.66
Surplus, January 1, 1957	$ 4,386.04	
Add, interest earned on savings account	142.32	
		4,528.36
Surplus, December 31, 1957		$ 8,367.02

Statement of Capital
Special Funds
Year Ended December 31, 1957

GURDON W. RUSSELL FUND

Balance, January 1, 1957	$ 6,866.75
Add:	
Interest received on savings account and securities	221.13
Gain on sale of securities	78.22
	$ 7,166.10
Deduct, disbursements for sundry items of equipment and furniture	73.10
Balance, December 31, 1957	$ 7,093.00

O. C. SMITH FUND

Balance, January 1, 1957	$ 1,304.67
Add, interest received on savings accounts	39.37
Balance, December 31, 1957	$ 1,344.04

BUILDING FUND

Balance, January 1, 1957		$161,234.56
Add, contributions		4,585.00
		$165,819.56
Deduct:		
Disbursements for sundry items of building supplies and expense	$ 387.08	
Reimbursement to general fund of unused portion of amount advanced for construction of new building addition	13,260.97	
		13,648.05
Balance, December 31, 1957		$152,171.51

BUILDING FUND—RESERVE FOR DEPRECIATION

Balance, January 1, 1957	$ 10,678.27
Add:	
Interest on savings account	336.11
Transfer from General Fund	2,200.00
Balance, December 31, 1957	$ 13,214.38

Statement of Income and Capital
Clinical Congress Fund
Year Ended December 31, 1957

Income:		
Registrations	$1,605.00	
Exhibits	1,750.00	
		$ 3,355.00
Expenses:		
Committee meetings	$ 128.03	
Speakers	748.27	
Meeting operating expenses	110.89	
Printing and postage	840.18	
Rentals—hotel	850.00	
Projection equipment	140.00	
		$ 2,817.37
Excess of income over expenses		$ 537.63
Surplus, January 1, 1957	$3,165.33	
Add, interest earned on savings account	72.42	
		3,237.75
Surplus, December 31, 1957		$ 3,775.38

Sealtest MILK "detective"

Homogenized Vitamin D Milk
Vitamin D Fat-free Milk
Buttermilk
Chocolate Milk
Cottage Cheese
Sweet Cream
Sour Cream
Butter

Every step from dairy farm to bottle or carton is under the trained eyes of Sealtest inspectors and laboratory and plant technicians.

Thus Sealtest products are safeguarded for purity and excellence by a most exacting system of quality control.

In hospitals, schools, industrial or public cafeterias—or in the home, the Sealtest emblem means *quality*.

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GENERAL ICE CREAM DIVISION
National Dairy Products Corporation

Sealtest
TRADE MARK
DAIRY PRODUCTS

FROM OUR EXCHANGES

The Hartford Small Plant Medical Service and the New Haven Small Plant Medical Program are referred to in *Public Health Reports* 72:12, December, 1957 ("Small Plant Health Services and the Health Officer"—Gerber). Credit is given to "an official of one of the member companies "for initiating the Hartford group and to the New Haven Chamber of Commerce for the program in that city. Support and guidance has been supplied by the Bureau of Industrial Hygiene of the State Department of Health.

* * * *

"The Dynamic Approach to Arthritis" by Lowman (Pub. Health Rep. 72:12, Dec. 1957) points out the change that has occurred in the past ten years in the treatment of this disease with the steroids. While the mortality of arthritis is low, it leads all other diseases in crippling and economic loss. It is not confined to the aged but affects the young as well. Perhaps the most important factor in considering rehabilitation of the arthritic is to determine the etiological as well as the pathological diagnosis.

Successful rehabilitation of these individuals is influenced by eight major factors: (1) type of arthritis; (2) extent of damage to joints; (3) adequacy of medical therapy; (4) motivation of the patient; (5) applicability of self-help devices; (6) functional training; (7) corrective orthopedic surgery; and (8) social, economic, and vocational factors. The disabled arthritic is not beyond help if dealt with dynamically.

* * * *

Coffee in the *Journal of the Medical Association of Georgia* (46:12, December 1957) makes "Recommendations for the G. P. Doing Surgery." These are made because of the fact that the general practitioner doing general surgery often has to work in communities where a more intensively trained surgeon is not available and where he must care for the emergency and traumatic cases. Abdominal surgery is the field in which he is most often engaged. The author confines his remarks to this field dealing with massive gastrointestinal hemorrhage, acute upper abdominal pain, jaundice, acute obstruction and acute lower abdominal pain. A few pointers are worth mentioning: Gastric resection based on the assumption that bleeding originated in an occult ulcer when no demonstrable lesion is found is to be avoided. Surgical intervention has no role in the treatment of acute pancreatitis. In cases of intestinal obstruction determination of whether it is paralytic or mechanical is of first importance. The diagnostic pitfalls and possibilities are greater in cases of lower abdominal pain than in those with upper abdominal pain.

* * * *

"Effect of Temperature on Survival of Bacteria in Blood For Transfusion" by James and Stokes (Brit. Med. J., 5058, Dec. 14, 1957) gives the results of an investigation conducted with a view to determining whether the use of refrigerator vans provides an additional safeguard or introduces an additional risk. Routine incubator treatment of blood immediately after donation is not recommended without further extensive investigation. The benefits of incubation are felt to be outweighed by slight damage to the red cells in the numerous uncontaminated samples. Incubator treatment would not be easy to carry out since it would require some means of automatic refrigeration after two hours. Transportation of blood in nonrefrigerator vehicles between donation point and blood center was found to be satisfactory. If the blood can be refrigerated within eight hours of collection it was felt unnecessary to refrigerate at the collecting session or during transport in temperate climates. In the tropics the eight hours should be reduced to two hours. The final deduction by the authors is that one reason why accidents from infected blood are not more common may be that blood for transfusion is a poor culture medium.

* * * *

Waller and Lawther published "Further Observations on London Fog" (Brit. Med. J. 5059, Dec. 21, 1957) in which they used in this study the results obtained with routine daily instruments. Patients with chronic bronchitis and emphysema attending a special clinic at St. Bartholomew's Hospital were given diaries in which to record daily their own

This new telephone invention leaves both hands free while you're talking!

Now you can carry on a phone conversation while you have both hands free to take notes, consult books or refer to records. You can even move about while you're talking on the new "Speakerphone"! It's ideal, too, for conferences when it's desirable for several people to talk and listen on the same call.

The revolutionary "Speakerphone" is a real boon to today's busy medical profession. Just call our business office for further information and quick installation.

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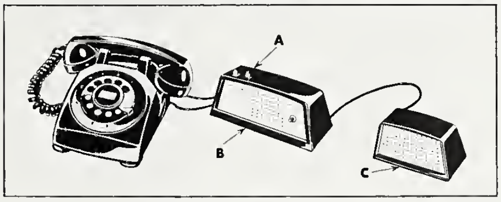

You just press a button (A) and your voice is picked up by a microphone (B). The voice of the person you're speaking with comes through a small desk-top loudspeaker (C). (When you want privacy, the phone can be used in the conventional way.)

THE SOUTHERN NEW ENGLAND **TELEPHONE** COMPANY

assessment of their health by means of a simple code. Daily measurements of smoke and sulphur dioxide were continued at St. Bartholomew's using the standard Department of Science and Industrial Research instrument. A fairly close correspondence was found between the periods of low visibility and peaks in the degree of illness. There was found a closer association with the concentration of smoke when the condition of the chronic bronchitis patients became worse as the former increased. The presence of water droplets did not enhance these effects. The concentration of sulphuric acid in the air was found to rise with that of smoke, leading the authors to believe that it may be partly responsible for the effects observed on chronic bronchitis patients. The actual pollutant responsible for the harmful effects of the London fog on patients has not been identified.

* * * *

The editor of *The New England Journal of Medicine* is to be congratulated on his fearless attack on the publications of the tobacco industry, *Tobacco and Health*, a new periodical, and *Science Looks at Smoking*, a 127 page booklet distributed gratis to stockholders of the American Tobacco Company (editorial, N. E. J. Med., 258:2, Jan. 9, 1958). As this editorial points out, these broadsides shy clear of the real scientific questions involved, which they are in no position to answer, and instead belittle "'scare theories';" report "homely, innocuous truths that everyone has known for years such as 'there is no simple cause of cancer' and 'nonsmokers get cancer'", and summarize "editorials and other testimonials that have to do with lack of 'convincing' evidence against the 'alleged dangers of cigarette smoking.'"

As the Bostonian editor points out, "a deadly serious decision awaits a final verdict, by the impartial methods of biology and science, and most consumers are in no position to decide the facts." Some day we shall have the truth but it will not come from the tobacco industry.

* * * *

Whitridge in "Research in Human Reproductive Wastage: Implications for Public Health" (Am. J. Pub. Health, 48:1, Jan. 1958) points out the changing emphasis in obstetrical research which now stresses pregnancy wastage rather than the mere mechanical processes of pregnancy and delivery. He proposes a six point program. There must be an intensive study of the whole process of human reproduction and human relationships. Certified nurse midwives should be trained in greater numbers to assume the responsibility of the care of normal service patients. Cooperation with workers in other specialities should be developed in an effort to discover relationships between obstetrical problems and chronic illnesses in the aged. Hospitals must be prepared to share in obstetrical research programs. The lay public should be educated chiefly through leadership in health departments. A new field is opening up for the work of local committees on maternal and child welfare, in fact, the entire field of reproduction calls for a reassessment of our present methods of teaching, of research, and of treatment.

* * * *

Wachtel in the *British Medical Journal* (5061, Jan. 4, 1958) under the title "A Simple Cytological Test for Cancer Cure" reports on the efficacy of the cornification index for detecting failure of response to radical treatment for malignant disease of the genital tract or for the detection of early recurrence. Accurate forecasts, relying solely on this method, were made in 94.8 per cent of 165 cancer follow-up patients. An incorrect cytological prognosis was made in eight patients with persistent or recurrent disease and low cornification index readings.

The technique is said to be easy. It consists of a count of 200 consecutive superficial and intermediate squamous cells and determination of the percentage of cornified cells, that is, those with pyknotic nuclei. Basal cells are excluded since they are invariably increased in the presence of infection and cancerous growth in the genital tract is often associated with infection, leading to a wrong interpretation. The authors believe this procedure should be included in routine cytological cancer follow-up investigations in view of the important implication of this test.

* * * *

Tonometry is considered an essential part of a ophthalmic examination of patients over the age of 40 years ("The Early Detection of Glaucoma Results of 2000 Routine Tonometries", Reed *et al* *Canad. Med. J.*, 78:1, Jan. 1, 1958). Surveys have shown that two per cent of people over 40 years have unrecognized glaucoma. Medical schools should see to it that all undergraduates are properly instructed in the procedure.

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Sacro-Support®
MATTRESS

Brand Names Foundation

In Recognition of Continuous Service
to the American People since 1900
Awards to the Brand Name
Gold Bond
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The Standard Mattress Co.
Hartford, Connecticut
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FOR THE PRICELESS GIFT OF HEALTHFUL SLEEP

. . . There is nothing finer than the Gold Bond Sacro-Support. Scientifically designed, it provides proper, *restfully firm support* from head to toe. Thousands agree it not only can bring relief of backache, often caused by sleeping on a soft, sagging mattress . . . but that it's the best investment in sound, wholesome sleep for *every*-body!

Accepted for advertising in the Official Bulletin of the American Academy of Orthopedic Surgeons.

The Gold Bond Sacro-Support is made by THE STANDARD MATTRESS COMPANY, 55 North Street, Hartford, Connecticut

FOR PROFESSIONAL DISCOUNT WRITE TODAY!

AROUND THE STATE

Connecticut Surgeons Issue Bulletin

Members of the Connecticut Society of American Board Surgeons have just received the first issue of a quarterly news bulletin which will be printed and circulated for the purposes of relating news of the society and its members so that the members may become better acquainted with each other.

The first issue is dedicated to Dr. Samuel C. Harvey, a founder of the Society, formerly Professor and Chairman of the Department of Surgery at Yale, and past president of the Connecticut State Medical Society. It contains a short biographical sketch and a reproduction of Deane Keller's painting of the late Dr. Harvey. There is also a brief history of the Society written by Dr. Courtney Bishop of New Haven and a listing of some of the new members together with a brief curriculum vitae of each.

Connecticut Advisory Committee on Foods and Drugs

Meeting of March 27, 1958

The member societies, institutions, and the State agencies were represented at this meeting as follows:

Connecticut Agricultural Experiment Station, Dr. Harry J. Fisher; Connecticut Veterinary Medical Association, Dr. Joseph DeVita; Connecticut State Dental Association, Dr. William Kirschner, Jr.; State Department of Health, Dr. James C. Hart; State Pharmacy Commission, Mr. Edmund Goodmaster; University of Connecticut, Dr. Stanley E. Wedberg; Yale University School of Medicine, Dr. Nicholas Giarman.

TRIM REDUCING-AID CIGARETTES

The directions for use on the pack state: "Trim reducing-aid cigarettes contain a patented appetite salient that takes the edge off your appetite. Clinically tested . . . . Trim reducing-aid cigarettes are "GUARANTEED" to satisfy you or your money back. Manufactured for CORNELL DRUG CORPORATION. Active ingredients: Combustible tartaric acid, combined with tobacco and flavoring." (B.S.)

The Secretary was instructed to write to the manufacturer and ask for clinical evidence to support their claims.

AWOBA UNDERWEAR

The literature accompanying the sample presented before the Committee was labeled: "OBERBAD ANGORAWERKE, HAUINGEN b. LORRACH". Among other claims made for this "device" was that it "prevents colds". The living angora, of which the shirt was made, is supposed to aid sufferers of various diseases. It was moved that the advertising, in our opinion, is fraudulent. It is an implied and stated misrepresentation. Motion passed.

SIGNET SPECIAL FORMULA GELATIN CAPSULES

"A dietary nutritional supplement for nails as lovely as nature intended. Contains refined pure high proteins and sugarless gelatin. Helps prevent splitting, peeling, chipping, breaking. Take 1 capsule in the morning and 2 capsules at night".

The Secretary was instructed to ask the manufacturer for proof of the claims being made. Since Knox gelatin makes similar claims, a letter will be sent to them seeking support of their claims.

DU-DOL REDUCING COCKTAIL

Appetite depressant in the treatment of obesity. Contains concentrated natural fruit acids, sucrose, and phenylpropanolamine hydrochloride. The Secretary was instructed to write to the Anderson Pharmacal Corporation in New York to request proof of the claims being made for this product. The physicians on the Advisory Committee expressed the opinion that this product was too concentrated a drug for the average household. The label reads: "For adults only. . . . Each dropperful (1 cc) contains 25 mg phenylpropanolamine hydrochloride. Caution: Do not use more than three dropperfuls (3 cc) in any 24 hour period".

The comment was made at this point that REGIMEN is still being advertised in the New Haven Register.

A brief discussion was held about the increased problem of detergents showing up in water from drilled wells, especially in newer housing developments where dish washers and clothes washing ma-

NATCHAUG

Convalescent Hospital, Inc.

A one-story, brick, fire resistant, ranch type, T shaped building; constructed, planned, and equipped by active physicians, to provide efficient individualized medical treatment and relaxing home like atmosphere, for convalescent and chronically ill, bed ridden or ambulatory patients.

Accommodations for patients in single or two bed units only.
24 hour coverage by licensed nursing personnel.
Privileges extended to all qualified physicians.
Adequate kitchen facilities for special diets.

REASONABLE RATES

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VITAMIN-MINERAL
FORTIFIED MILK

Supplying all the vitamins (except C) and minerals in one quart on which the Federal Security Administrator has set a minimum daily adult requirement.

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Telephone DIamond 6-6681

A diagnostic and therapeutic neuropsychiatric unit

V. Gerard Ryan, M.D.
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WESTVIEW
MANOR

NEW ENGLAND'S MOST MODERN CONVALESCENT HOSPITAL

Built for the purpose
REASONABLE RATES
Private and two-bed
semi-private units
Registered Nurses: 24 hours

Attawaugan, Conn.
BETWEEN DANIELSON & PUTNAM ON ROUTE 12
CHARLES E. HURLBURT, Administrator
(Brochure on request)

chines are pouring huge volumes of water into the ground. Detergents are not acted upon in the ground and eventually find their way into water supplies. No one seems to know how toxic these detergents are. Levels up to 7 ppm have appeared in some wells tested in Connecticut.

Manchester Memorial Hospital Has New Plan For Hospital Care

Since April, 1957 the Manchester Memorial Hospital has been achieving "remarkable results" for patients and physicians in an entirely new approach to hospital care called "progressive patient care." It is a comprehensive system designed to adapt hospital facilities to the patient, rather than the other way around. The Manchester plan may "foreshadow new thinking, new planning, and new policies in many of the 7,000 hospitals in the country," according to the Journal AMA.

The Manchester plan is a three phase program of gradually placing the patient in transition from special surveillance to self help. Or it may work in reverse—from a diagnostic work-up in the self-help unit, to surgery and the intense care unit, and then back to self service by way of an intermediate care unit. Each unit is equipped and staffed according to the needs of the patients it serves.

Last July, encouraged by preliminary results, the U.S. Public Health Service decided to finance a detailed and continuing study of the Manchester experiment by a team of experts. There were to be no recommendations—just scrutiny of the system in operation. Meanwhile, the idea was fast becoming known in scattered parts of the nation. By February, 1958 there were reported to be 30 hospitals in the country handling patients in stages similar to the Manchester plan and last week the Public Health Service found nearly 150 hospitals doing it.

Some of the beneficial changes that may result from the plan, according to the article, are:

—Because only the doctor would decide when his patients were ready for transfer from one unit to another, he would be brought into more intimate contact with the hospital than he is under most existing conditions.

—Installation of expensive equipment in only one section of the hospital, the intensive care unit, would bring about substantial reduction in over-all construction and operating costs. Design and architecture of the buildings also would be changed greatly.

—In turn, this prospect of accumulated savings might very well bring costs within the means of communities which now are struggling with the problem of financing new hospitals or enlarging existing ones.

—Concentration of the most thoroughly trained nurses and ancillary medical personnel in the intensive care units would allow more effective use of their skills. This is particularly important at a time of severe shortages in these fields.

—Individual patient costs could be less, because of varying room rates. The scale at Manchester is $22 a day for the intensive care unit, with continuous nursing surveillance, $16 for the intermediate care unit, and $8 a day for the self-service unit, where service by a registered nurse is minimal, and the patient is able to care for himself.

While individual costs may be less under progressive patient care, its really big advantage lies in much better care for the patient's dollar, according to Dr. Edward T. Thompson, the director of the U.S. Public Health Service study.

Connecticut Regional Blood Program

At the meeting of the Connecticut Regional Blood Committee held in March, Victor G. H. Wallace, director, reported on the first open heart surgical operation performed in New Haven on March 20, 1958. He said there is a need for extreme and accurate cross matching of blood, 14-20 pints will be needed, and at the present time New Haven has 150 cases in prospect and hopes to do them at the rate of one a week. It was further observed that the blood must be freshly drawn for in spite of a new anticoagulant the maximum time for usage is but 24 hours. With these things in mind a sort of procedure has evolved:

1. The Surgeon fixes the date and notifies hospital laboratory.
2. The Blood Center is then notified being told the name of patient, the blood type, the number of pints needed and the next of kin.
3. The Center advises the Chapter of Jurisdiction and the Chapter will go to the family to enlist donors. Families will be the first line of defense in Open Heart Surgery due to the hereditary factors and their particular interest.

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4. Where the Chapter has the donors, the Blood Center will type the blood using one of the two samples taken and then advise the Chapter of the persons whose blood most nearly cross matched at the Hospital and the Center so advised.

5. The Chapter finally will be told the name or names of suitable donors and it will be the chapters responsibility to see that the donors are on hand.

	APRIL 1958	7/1/57 THRU 4/30/58
DONORS		
Donors accepted	8,540	74,882
Donors rejected	749	6,764
Donors registered	9,289	81,646
BLOOD ISSUED TO HOSPITALS		
To Connecticut Hospitals from Center	6,865	63,076
Blood collected by hospitals	485	6,431
To fractionation stock pile	540	2,367
To out of state hospitals	124	1,026
To N.I.H.	2	17
	8,016	72,917
PROCESSING AT CENTER		
Processed into fresh frozen plasma	78	767
Processed into liquid plasma	961	6,087
Processed into packed cells	0	15
	1,039	6,869
Discarded—unfit and broken	45	350
Grand Total—Distribution of blood	9,100	80,136
Blood returned to Center for processing into plasma and fractions	892	5,890
BLOOD DERIVATIVES ISSUED TO HOSPITALS		
Irradiated plasma (300 cc)	0	305
Fresh frozen plasma (125 cc)	163	1,499
Serum albumin (100 cc)	54	889
Immune serum globulin	0	522
Packer red cells	0	15
Fibrinogen	12	12

SUMMER SLUMP

It may be the heat. It may be the humidity. One thing, however, is certain: The collection of blood by the Connecticut Regional Blood Bank falls during the summer months. One other thing is certain. The demand for blood will remain at approximately the same level as during the winter months. The meaning of this to physicians is clear; that the indications for the use of blood must be carefully scrutinized; and that the profession should exert its influence in the recruitment of donors.

The reason for the consistent fall is not clear, but it is probably related to the normal summer vacation. Many factories in the state shut down for varying periods. Our universities are on vacation. Holidays also affect the number of our blood recruiters. Whole blood, however, is only useful for a short time, and must be continuously replaced and can only be replaced from one source. This source is also subject to the usual summer holiday.

The need of blood is well known to the medical profession. Unfortunately, its ready availability through the Regional Blood Program has diminished the urgency for its collection formerly felt by the individual physician. The Blood Program requires your cooperation during the hot months in stimulating the recruitment of donors and conserving the available blood.

Hartford County

Edward Scull of Hartford participated in a panel on arthritis and rheumatism at the Fifth International Congress of Internal Medicine held in Philadelphia in April.

James R. Miller of West Hartford was recently honored by the Council of the New England State Medical Societies as one of its eleven past presidents.

Hartford Hospital has received the first installment—$10,000—of a $20,000 grant for anesthesiology from E. R. Squibb and Sons given in connection with the Squibb Company's Centennial Year, 1958. The money will be used by the Department of Anesthesiology for research on instrumentation to monitor the patient's condition during anesthesia and operation.

Stewart P. Seigle of Hartford was named to the executive committee of the American Society of Internal Medicine at its meeting recently in Atlantic City.

John C. Leonard of Hartford was named to the Board of Governors of the American College of Physicians at the recent annual meeting in Atlantic City.

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Litchfield County

The 194th Annual Meeting of the Litchfiel County Medical Association was held at the Torrington Country Club, Goshen, on April 22, 1958 It was an extremely well attended meeting, th best turnout in years. Present at our meeting wer W. Bradford Walker, president of the State Medica Society, Stanley B. Weld, editor of the State Medica Journal, Stanley Osborn, commissioner of health and various county delegates.

The following were elected to office: President, Francis Gallo, Winsted; Vice-President, Gaert S. Gudernatch, Sharon; Secretary-Treasurer, Isadore S. Goldberg, Torrington; Councilor, Sidney R. Kennedy, Jr., Torrington; Alternate Councilor, David A. Grendon, Sharon; Delegates—George L. Cushman, Woodbury; Robert C. Sellew, Jr., North Canaan; Frederic C. Gevalt, Sharon; Isadore S. Goldberg, Torrington.

Following the election of officers a dinner was enjoyed by the members and their wives, members of the Auxiliary and the guests. The after dinner speaker was R. L. Kemler, a thoracic surgeon of Hartford. His topic, "Surgery of the Heart," was most interesting to all present.

New Haven County

Christopher J. Dwyer of Waterbury died suddenly on April 18 in Waterbury.

Samuel J. Goldberg of New Haven died at his home on April 28 at the age of 72 years.

Allan J. Ryan of Meriden has recently been appointed Medical Examiner for that city by the County Coroner, Mr. James J. Corrigan. Dr. Ryan succeeds Dr. H. DeForest Lockwood who is retiring after many years of service in that position. Dr. Ryan has also been elected Medical Vice-President of the American College of Sports Medicine, an organization of physicians and laymen in the fields of physiology and health education which is now in its fourth year.

Tolland County

The 170th Annual Meeting of the Tolland County Medical Association was held on April 15 at the Olde Homestead Inn in Somers.

Harry S. N. Greene, professor of pathology at the Yale School of Medicine, presented a fascinating talk entitled "Farmers Daughters and Cancer Research" in which he described and illustrated his remarkable work in tumor and embryonic tissue transplants. It was very apparent that he has made a vital contribution in the field of cancer research, and the members of the Tolland County Association are grateful to have had an opportunity to hear him speak, and see his wonderful slides.

William Horton and Mr. Howard Bjorkin of CMS attended the meeting and presented a discussion, illustrated with slides, of the proposed new CMS Connecticut Plan Integrated Contract. Their discussion was very lucid and cleared up many misunderstandings and misconceptions concerning the new Contract.

At the business meeting a resolution was adopted, without opposition, approving and supporting the new CMS CPI Contract.

It was also voted to support and approve local Poliomyelitis Immunization Clinics under the direction of local physicians within the County.

The following officers were elected: President, John Hughes, Somers; Vice-President, Francis Burke, Rockville; Secretary-Treasurer, R. B. Thayer, Jr., Hazardville; Councilor, Alfred Schiavetti, Stafford Springs; Alternate Councilor, R. B. Thayer, Sr., Somers; State Delegate, W. G. Luckner, Stafford Springs; Alternate State Delegate, John Phiffer, Rockville.

Yale University School of Medicine

The Yale School of Medicine has awarded four fellowships for advanced study and research in European laboratories and a fifth for a year of research at Yale. Each of the fellowships provide about $3,000 to cover expenses and the five students receiving the awards will interrupt their regular medical course in 1958-59 for a year of special work.

Funds for the fellowships and scholarships have been provided by the James Hudson Brown Memorial Fund at Yale, the Fulbright awards, the National Science Foundation, the National Institutes of Health, the Foundations Fund for Research in Psychiatry, the Lederle Laboratories, the Josiah Macy Foundation, the Tobacco Research Foundation, and the National Foundation for Infantile Paralysis.

One of the recipients of the European awards is Shaun J. Ruddy of Ansonia who will go to Paris to pursue research on "Immune Adherence" at the

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Pasteur Institute. The award for research at Yale goes to Frank H. Baker of Hartford to work in the Department of Physiology, Physics and Electrical Engineering.

Yale Physicians Develop New E C G Machine

At the recent meeting of the College of Obstetricians and Gynecologists held in Los Angeles, Edward H. G. Hon of Yale School of Medicine reported on a new electrocardiographic machine designed to record the fetal heartbeat and to be used to detect infant distress during labor. Dr. Hon said that the highly sensitive electronic machine has already proved more efficient in diagnosis of fetal life early in pregnancy than traditional methods now used.

Development of this electrocardiographic equipment is part of a long-range research project at Yale aimed at finding a reliable means of determining if the course of labor is detrimental to the unborn child and if immediate intervention is necessary to prevent fetal damage or death. It is hoped that earlier intervention will reduce the 160,000 deaths associated with the birth process each year and the number of infants afflicted with cerebral palsy and mental retardation.

Dr. Hon emphasized that more research is needed before the new machine can be used as a regular aid during labor and delivery. Clinical tests have been carried on at the Yale-New Haven Medical Center for the past two years and the results are being used to develop a new improved model of the equipment.

The new machine developed by the Yale doctors is actually a combination of two machines plus an electronic subtracting unit. One machine records the combination electrocardiograms of mother and baby; the second records the mother's alone, and then the electronic unit subtracts the mother's electrocardiogram from the combination mother-infant complex, leaving only the baby's E.C.G. available for automatic counting.

This machine has the advantage over other methods of observing the fetal heart rate in that it provides a continuous recording in a majority of cases, even during the mother's contractions in labor.

Assisting Dr. Hon in these clinical studies are Dr. O. W. Hess, Dr. Frank Chung, Margaret Ranek, Jean Peterson, Jacqueline Corbett, and Mildred Boynton. Technician is George Park.

NEW BOOKS IN REVIEW

PHYSICAL METHODS IN PHYSIOLOGY. W. T. Catton, M.S. New York, Philosophical Library. 156 figures. $10.00.

Reviewed by Louis H. Nahum

This is a short book of 375 pages undertaking to describe physical methods as they are applied to the study and solution of physiological problems. In it one can find a wide variety of physical experimental techniques as well as theoretical treatments which have been applied to physiological investigations. For this reason the book could be useful for an active experimental physiologist, a student who wishes to learn more about the background of experimental techniques. It is clearly a valuable guide to a graduate physicist whose interest may be in the direction of applying his knowledge in problems of physiology or medical sciences. The first three chapters are really devoted to techniques of measurement. Thus in the first chapter on blood one finds analyses of physical methods for estimating the degree of oxygen saturation of the blood (oximetry); determination of mean red cell diameter by diffraction methods, measurement of mean red cell volume; the counting of red blood cells; blood viscosity and blood sedimentation.

The second chapter on the circulation and the third on respiration are without doubt the best in the book. They comprise 132 pages of which 104 are devoted to circulation and 28 to respiration. In these chapters a student can quickly familiarize himself with most of the physical principles underlying the physiology of the circulation. The heart as a pump, hydrostatic pressure in the circulation, blood pressure, the arterial pulse, velocity of blood flow, the pulse rate meter, and the correlation of pulsatile pressure to flow phenomena are well covered. The impact of such a chapter on a student of physiology is great, since it becomes clear that the structural arrangement of the circulatory system and the energetics of the individual cell are only the basis for function and that the whole system operates on essentially physical principles. Without a knowledge of physics and simple mathematics a student will realize how inadequate his training is in entering the field of the circulation.

The chapter on respiration though short is excellent. The intrapleural pressures, viscoelastic properties of the lung, air flow in the lung airways, methods of continuous recording of tidal air, gaseous exchanges across the alveolar epithelium; transport of oxygen from blood to tissues by diffusion; physical methods of measuring CO_2 and O_2 content of respiratory gases are dealt with in full. Any student who is working in the field of pulmonary physiology and function would find this chapter worth the whole price of the book.

In the succeeding two chapters, one on muscle and one on peripheral nerve, one finds that physical methods are replaced by summaries of knowledge of physiology of these two systems, not of how such knowledge was obtained. These chapters are therefore reviews. The one on nerve is the usual recapitulation of Hodgkin-Huxley work without any new insight or interpretation; minor ambiguities and methodologi-

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cal errors do not reduce the value of these chapters as a review of the present knowledge.

The last two chapters, one on the physical basis of body heat exchanges and one on electronics in physiology, resume the original purpose of the author in dealing with physical methods in physiological investigations.

The author wisely chose to eliminate from this volume a consideration of electrocardiography, electroencephalography and physical methods in the study of the physiology of the sense organs, since these are covered excellently in other volumes and their consideration would have unduly increased the size of this book.

For those who do not possess the encyclopedic Medical Physics edited by Otto Glasser or cannot take the time to read the three volume Methods in Medical Research published by the Year Book Publishers, Prof. Catton's book will be a welcome addition. It should be in the library of all physiologists, medical specialists and physicists who have an interest in physiology.

THE NEUROSES AND THEIR TREATMENT. Edited by Edward Podolsky, M.D., F.A.P.A., F.A.P.M.. New York, Philosophical Library, Inc. 555 pp. $10.00.

Reviewed by Robert S. McKnight

It is becoming increasingly difficult to keep abreast of the enormous flow of papers in the psychiatric literature as the years pass by. At the same time, emotional disorders are being recognized more and more as occupying a prominent place in the ills of today, and so demand recognition and treatment. In an effort to aid the medical profession, the editor has surveyed the literature and selected approximately forty papers from various journals for reproduction in this volume, each essentially in their original form. His expressed intent is to focus upon the neuroses and their treatment. In doing so, he has attempted selectivity in a broad field, resulting in a collection of diversified papers in one phase of a specialized section of medicine. There is no discussion or conclusions drawn from the material presented and the bibliography of each paper is omitted.

The first eight papers deal primarily with childhood and adolescent disorders, their manifestations and treatment, analytic and chemotherapeutic, by such authors as Rene Spitz and Lydia Dawes. Subsequent papers deal with postpartum anxiety, compulsion neurosis, phobic reactions and psychosomatic disease, including allergy and trauma, to mention a few. Effort has been made to include papers dealing with organic therapy such as use of carbon dioxide, sedation, tranquilizers, psychosurgery, in addition to papers on psychotherapy and psychoanalysis.

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The editor emphasizes that the diagnosis, management, and treatment of the neuroses are of utmost importance to every physician in active practice and that is the reason for this book. One cannot help but feel that this collection of papers would not be particularly helpful to the average physician but are much more meaningful to psychiatrists. Aside from a few, the treatment papers deal with specialized treatment techniques which one would not expect the average physician to attempt or be skilled in. However, the practicing physician may read these papers as a matter of interest if he is so oriented. Similarly, the remainder of the papers, descriptive and dynamic, are of prime interest to psychiatrists, but may be a matter of interest to a select few of practicing physicians who have a particular interest in one phase of the neuroses such as occupational neuroses, psychosomatic illnesses, allergy, or the hyperkinetic emotionally disturbed child. By and large, the papers collectively are too specialized to be of practical value to the average practicing physician.

THE ATOMIC AGE AND OUR BIOLOGICAL FUTURE. By H. V. Bronsted, Professor of Zoology, University of Copenhagen, Denmark. New York, Philosophical Society. 1957. 80 pp. $2.75.

Reviewed by Stanley B. Weld

This volume by a leading zoologist in Europe is based on a series of lectures to the general public. The aim of the author apparently is to warn the public of the dangers inherent in radiation effects resulting from the use of atomic energy. In doing so he describes quite simply the action of fusion and fission of atoms, the action of radiation on matter and on the human body. Chapters are devoted to the fertilized egg, mutations, the transmission of genes, the visible effects of radiation on the body, radiation and sterility, and the use of radioactive isotopes.

This whole problem is very much before us today, in the minds of the scientists and in the daily press for the man on the street to read. The extent of the problem cannot be measured at this early date but the warnings of biologists and geneticists are constantly in our ears.

THAT DEGENERATE SPIROCHETE. By Oscar Daniel Meyer, M.D. New York, Vantage Press, Inc. 1952. 320 pp. $5.00.

Reviewed by Stanley B. Weld

This book was presented to the Connecticut State Medical Society by the author. Dr. Creighton Barker, the executive secretary of the Society in 1957 at which time the book was received, handed it to me for disposition. My curiosity was aroused by the title, hence I read the book.

I would not advise any of our readers to follow my example. It is true that syphilis is by no means eradicated even in the United States but when the author finds so many conditions that might be due or probably are due to syphilis inherited in the genes for many generations, it is difficult to subscribe to his line of reasoning. Moreover, all of the references cited in the volume are outdated; there are none included since 1934. No reference is made anywhere in the volume to the use of penicillin or any other antibiotic in the treatment of syphilis.

The author is a urologist in his 75th year. He shatters one's faith in his scientific reasoning by including in the front of his book a chapter on Spiritual Manifestation in which he describes his own experience with a spiritualist in St. Louis. As a result of this manifestation he felt directed to embark upon a program using mercurial compounds in the intravenous treatment of syphilis and allied diseases.

The New China

An editorial in a recent issue of the *New England Journal of Medicine* reports on a visit of nine British physicians to China. To many the fact that Communism has come to China has meant that medicine has taken a backward step. There has been considerable compromise, however, between the old and the new. For example, the Minister of Public Health is a woman and is reported to b not a Communist. Peking Union Medical Colleg the crowning achievement of the Rockefeller Fou dation efforts, still retains its leading position, e pecially in the teaching of teachers. Its enrollmer has risen from 400 to 3000 and another medical co lege is now located at Hankow.

China has a population of 600 million and onl 70,000 doctors trained in Western medicine. Mos of the people are still cared for by the traditiona practitioners. Fee for service has survived. All doc tors are more or less specialists, working six eigh hour days a week in groups. Hospitals are mult plying rapidly, although there are still far too few prenatal care is being practiced, and delivery serv ice by trained midwives, often conducted in th hospitals, is said to have vastly improved.

Our Boston editor remarks that the British hav been able to accept the fact of China's Communisn and to accommodate themselves to it more easil than have Americans. We see evidence of this in the recognition of Communistic China as a govern ment by the British while our government cling to and recognizes only Nationalist China.

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The
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OUR CHANGING CONCEPTS IN THE TREATMENT OF CHRONIC EAR DISEASE

Paul B. MacCready, m.d., *New Haven*

During the last two decades our approach to the treatment of diseases of the ear has undergone tremendous change. The shift in emphasis from the treatment of infection to the conservation of hearing is not entirely the result of the widespread use of antibiotics though that may be one factor. Unfortunately, there is no medical or surgical treatment for nerve deafness at the present time, so this discussion concerns only conduction deafness.

In 1938 Lempert presented a new approach (endaural) for operating on the mastoid and inner ear utilizing high magnification. The principles and technics elucidated by him have been used in most of our recent surgical procedures. Stapes mobilization, popularized by Rosen, with its constantly changing technics has given a greater appreciation of the ossicles and oval and round windows. Finally has come tympanoplasty which is not one specific operation but is rather a surgical approach to a physiological reconstruction of the middle ear and its contents.

With the introduction of chemotherapy and antibiotics there was almost complete cessation of the need for surgical intervention in acute mastoiditis and for the almost universally performed myringotomy. The impression became prevalent among the medical profession that chronic otitis media would practically disappear. Such has not been the case and now there seems to be an increase in chronic otitis media with its resulting conduction deafness.

In order to understand the rationale for the various procedures one must have some knowledge of the hearing mechanism and how it works. This must of necessity be over simplified but some of the physiological principles can be elicited. It is interesting that many of the principles were first noted during operations on the ear after the use of high magnification.

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Drawings are from a teaching collection loaned to me by Dr. Howard P. House of Los Angeles.

SUMMARY

Our concepts in the treatment of chronic ear disease have undergone tremendous changes in the last two decades. This corresponds to the period beginning with the wide spread use of antibiotics and to the new approach for operating on the ear utilizing high magnification as introduced by Lempert. Many modifications of this technic have been developed to preserve and restore the hearing in chronic infection of the ear. No longer does this chronic infection always mean a loss of serviceable hearing. In many patients the disease process can be eradicated with improvement in hearing and at the same time the hearing can be improved by our newer technics.

PHYSIOLOGY OF HEARING

Sound waves in the air which vibrate the ear drum are carried by the ossicles to the oval window and set up vibrations in a liquid medium—the perilymph. The nature of this change in amplification from air to liquid is in the order of 20 to 1. The oval window opens into a space or chamber called the vestibule. The vestibule besides containing the ampullary ends of semicircular canals also contains the beginning of the scala vestibuli duct. The sound waves pass up the scala vestibuli and around through the helicotrema back down through the scala tympani to the round window in the middle ear. The cochlear duct containing the organ of Corti and its hair cells and endo-

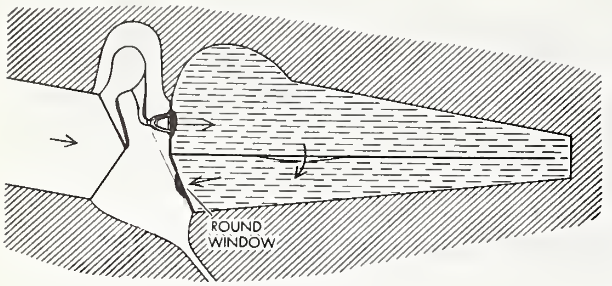

FIGURE I
Schematic (after von Békésy). How sound waves are conducted to the basilar membrane supporting the organ of Corti. As the stapes pushes the oval window membrane in the round window membrane must of necessity push out.

lymph, lies between these two scalae. It has been established that it is the vibrations set up in the basilar membrane supporting the organ of Corti which stimulate the hair cells.

It has been further established that there must be a difference in phase of the vibrations between the oval and round windows for the hearing mechanism to act efficiently. The middle ear must be an air containing cavity for the proper functioning of these two windows so that patency of the eustachian tubes is another factor. The ear drum not only has the function of transmitting sound waves but it also acts as sound protection for the round window, causing this sound pressure difference between the two windows.

For a detailed discussion of the physiology of hearing in language which the average physician can understand one is referred to an article on "The Ear" by von Békésy in the August (1957) issue of the Scientific American.

Before discussing the treatment of chronic infection of the ear it might be helpful to give a short review of the fenestration operation and some of the observations which have become principles for all ear operations. The modified radical mastoid operation with its preservation and often improvement in hearing is a direct result of the technic developed for the fenestration operation.

THE FENESTRATION OPERATION

The fenestration operation is done for clinical otosclerosis where the stapes is fixed and the oval window immobile. An endaural mastoidectomy as the first step is done to expose the inner ear. Then a fenestra (window) is made in the lateral semicircular canal where it enters the vestibule, and is covered with a flap attached to the ear drum. This eliminates the ossicular chain which accounts for 20 to 25 decibels of hearing so that the hearing can never be brought up to true normal. So many of the other operations are off shoots of this operation with differences in the handling of the ossicle that its principles should be clearly understood.

The fenestration operation has now been prett much perfected to eliminate its two main stumbling blocks—closure of the fenestra and serou labyrinthitis. It is now generally accepted tha serviceable hearing is obtained in 75 per cent o audiometrically suitable patients on the basis of years observation. Belluci stated in a personal communication this was 70 per cent in his series. I my own series it is 68 per cent for a 5 year observation period.

As pointed out by Lempert on numerous occasions, the scala vestibuli and the scala tympani wit their connection at the helicotrema can be looke on as a U shaped tube filled with fluid. When th oval window membrane is pushed in by a soun wave, the round window must of necessity pus out. The fenesta is made into the semi-circula canal just before it enters the vestibule into whic the oval window opens. If the stapes and henc oval window is not fixed when one does a fenestration operation, one does not obtain a satisfactor result. For this very reason one cannot do a successful fenestration in a chronic adhesive mastoid tis. The other corallary of this is that the roun window must be free to vibrate — it must be i an air containing cavity.

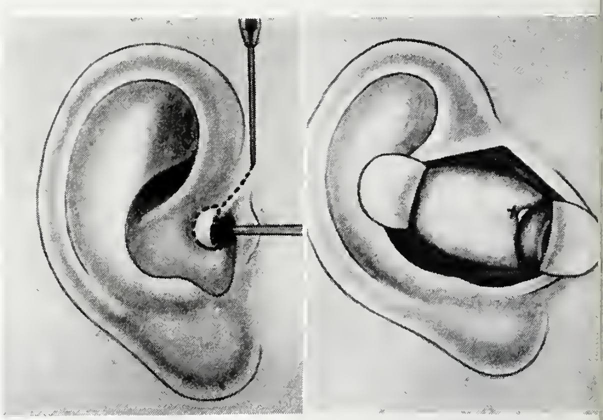

FIGURE II
A B
A. Incision for doing an endaural operation.
B. Exposure of mastoid by this incision.
The point X is just behind the spine of Henle and directl over the mastoid antrum. After removal of the mastoi cortex and cells the vision is directly down into the atti region and middle ear and not at an angle.

Satisfactory results in hearing are not obtaine where multiple fenestra are made such as one i

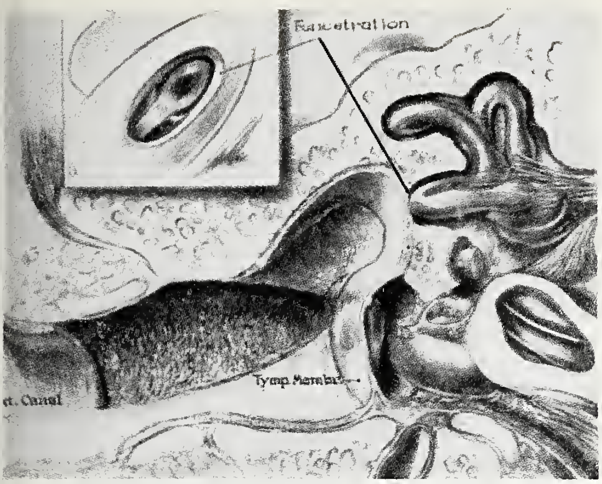

FIGURE III

A Fenestrated Ear. Note that the flap attached to the ear drum is placed over the fenestra in the lateral semicircular canal. Sound passes into the vestibule through this. The immobile stapes now is no longer part of the ossicular chain.

the lateral semicircular canal and another in the superior semicircular canal. Another example of the need for a phase difference in the two windows is seen in a patient with a large perforation of the drum and destruction of the ossicles. The hearing drops to the 60 decibel level as the sound waves hit the two windows simultaneously.

Stapes mobilization is a procedure using a totally different principle. The immobile stapes is freed up so that it can vibrate. The ossicular chain returns more or less to its functioning aspect. This has the advantage that in some patients the hearing can be brought back to normal. As originally described by Rosen this was accomplished by rocking the stapes. Since then numerous operators—Belluci, House, Goodhill, Farriar and others had changed the technic to working directly on the footplate. In the hands of some this increased the percentage of successful results from 35 per cent to 55 per cent in audiometrically suitable patients, principally the younger patients with incomplete fixation of the footplate. This has added considerable to our knowledge of otosclerotic lesions which can be seen under high magnification and to our appreciation of congenital abnormalities. Because of the newness of this operation long term follow up results have not been reported in sufficient numbers to draw any conclusions.

SURGERY OF THE CHRONIC DISCHARGING EAR

Most of our chronic conditions date right back to childhood. A resumé of the conditions found in children provides a starting point. There seems

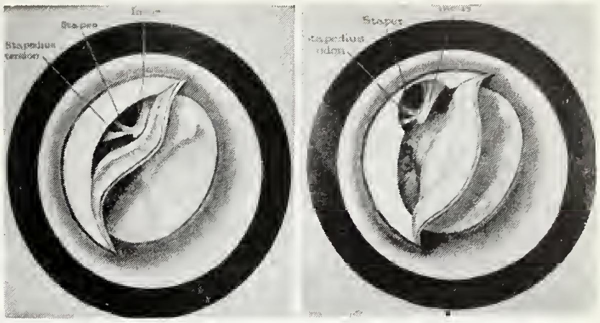

FIGURE IV

A B

STAPES MOBILIZATION

A. Incision and retraction of the drum from 12 to 6 o'clock.
B. Removal of bone from posterior canal wall to provide exposure of stapes.

to be a tremendous increase in chronic tympanic effusions—possible a by-product of the antibiotic age. If untreated this results in an adhesive process. Another condition is the development of a chronic suppurative process with persistence of tympanic perforations and ossicular chain necrosis. In many patients there may also develop cholesteotoma. These conditions are progressive and result in a gradually increasing conduction deafness. Among the non inflammatory conditions are juvenile otosclerosis and congenital fixation of the stapes and of course congenital anomalies of the canal and middle ear. Conduction deafness the result of inflammatory obstruction of the eustachian tube principally by the tonsils and adenoids is not covered in this paper though it is intimately bound up with the development of tympanic effusions.

In adults many of these conditions are found to be very far advanced. Our precepts for the handling of them have been as follows:

An evaluation of the discharging ear is made on the basis of the following factors:

1. Age, general health and occupation.
2. Duration and character of the discharge.
   Whether it is constant or intermittent, mucoid or purulent, and whether it is really troublesome or merely annoying.
3. Degree of hearing present.
   Do you have anything to offer the patient? Will you improve or worsen the hearing?
4. Xrays often do not help too much. They may show a cholesteotoma but that in itself does not dictate surgical intervention.
5. Response to conservative treatment. These patients are treated and watched often for a

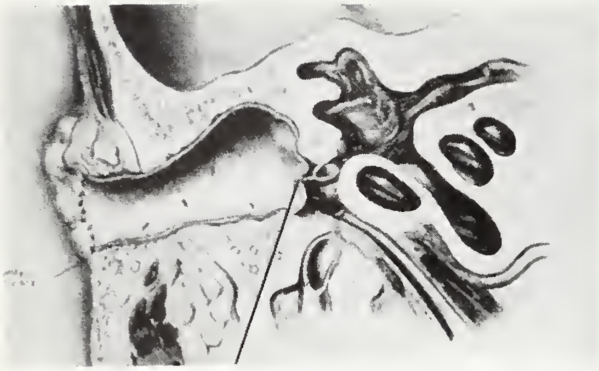

Figure V

Myringostapediopexy. Application of the drum membrane to the head of the stapes. If attachment occurs a "columella" affect is obtained. In this picture instead of the drum a skin graft replacing the drum is attached to the stapes but the principle is the same.

long period. There is always time to operate in the presence of threatened complications if the patient is under observation. These complications are:

   (a) Vertigo—labyrinthine fistula
   (b) Deep seated pain—dural irritation
   (c) Facial paresis

6. Suppuration not subsiding under conservative treatment indicates a progressive process which will further destroy the hearing. One should always consider operating while the hearing is still good. But even that must be qualified. Repeated studies and tests often do not disclose the condition of the ossicles in these patients with active infection. Adhesions frequently lead to sound protection of the round window and sometimes to sound conduction directly to the stapes and their disturbances would adversely affect the hearing.

The precepts we have followed in the past were to do a modified radical operation when the perforation was in the epitympanic space and presumably all pathology limited to that area. A radical operation was done if the perforation involved the pars tensa of the drum and the pathology involved the middle ear. It was always explained to the patient that it was not always possible to do a modified radical operation as planned, as we can't always estimate the pathology preoperatively. The exceptional results in some of these patients (improvement to 30 decibels of hearing) apparently have occurred where it was possible to get the inner tympanic wall to epithelialize with a thin membrane.

After a radical operation the hearing usually settles around 50 decibels which isn't serviceable. Once a radical operation is done nothing further in the way of improvement can be accomplished as the middle ear is obliterated. Except in the presence of complications, the tendency now is to attempt the modified radical operation which may not be a complete success but enough structures are preserved to allow a subsequent tympanoplasty or some other procedure.

There are two requirements which are necessary to restore *sound conduction by air.*

(1) The middle ear must be maintained as an air conduction cavity. The whole cavity does not need to be air containing but there must be an air cavity over the round window and this must be connected to a patent eustachian tube. Otherwise the middle ear cavity will fill with fluid or adhesions and result in obliteration producing a conduction deafness.

(2) There must be an intact functioning ossicular chain or a stapes with unimpeded mobility. In the later case it is often possible to attach the pars tensa of the drum to the capitulum of the stapes in such a way that serviceable hearing will result. This later procedure goes under the name of myringostapediapoxy—a term suggested by Juers!

From this it is evident that tympanoplasty must be reserved for these patients in whom the suppuration has been brought under control and the discharge has been absent for several months—the process has become essentially an adhesive process.

TYMPANOPLASTY

Tympanoplasty means a reconstruction of the middle ear as an air containing cavity and a reconstruction of some part of the ossicular chain so as to permit air conducted sound vibrations to pass through the oval window. These patients require very extensive tests but even so it is not always possible to say ahead of time how much of the ossicular chain is destroyed, nor the condition of the two windows, nor the extent of the pathological process elsewhere. Much of this information can only be obtained at operation so the first part is always a tympanotomy. Then comes the tympanoplasty adapted to the particular conditions which are found.

It must be emphasized at the very start that removal of all the pathological changes which is the first task of a tympanoplasty can only be done after the suppurative process has been brought under complete control.

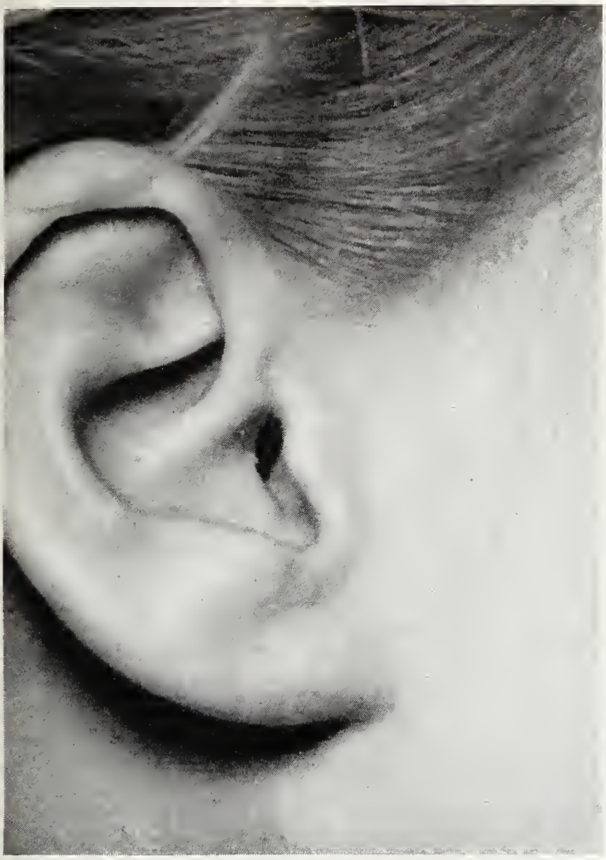

FIGURE VI

Complete traumatic closure of the ear canal from forceps delivery in a girl age 10 years. Reconstruction of the ear canal and drum brought the hearing from 30 decibels up to normal.

Myringoplasty must not be confused with tympanoplasty. Myringoplasty means the repair of central perforations by full or three quarter thickness skin grafts. The middle ear is intact. Many of these perforations can be made to close by office treatment. Only the larger ones need be operated upon. The technique requires the removal (under the microscope) of the epithelium on the surface of the drum before the graft is applied. Improvement in hearing will not result until the graft has thinned out and acts as a vibrating mechanism. Wright has developed a technic to enable one to see the whole drum under the operating microscope—a very difficult procedure to accomplish. This is necessary to get accurate approximation of the graft.

Zollner and Wullstein have been the ones to provide the impetus for the work on *tympanoplasty.* The study of these patients preoperatively in an effort to determine the extent of ossicular damage is difficult. Two tests should be mentioned. The first is a therapeutic test. After anesthetizing locally the perforation is closed with cigarette paper or Cargyll membrane and then the audiogram repeated. The second test is the use of the acoustic probe to determine the mobility of the stapes and other parts of the ossicular chain. Yet much depends on the observation at operation with the high power microscope.

Wullstein has divided his patients into five classes depending upon how much of the ossicular chain is damaged, the mobility of the stapes and the size of the middle ear cavity. The details of this are exceedingly complex and are beyond the scope of this paper which is written primarily for the general practitioner.

There is another type of patient where a tympanoplasty is performed with success and that is in congenital and acquired anomalies of the external and middle ear. This does not refer to the cosmetic operation for deformities of the auricle. It refers to lesions involving the external canal, the tympanic membrane, ossicular chain and the windows on the medial tympanic wall. Two examples will best illustrate this.

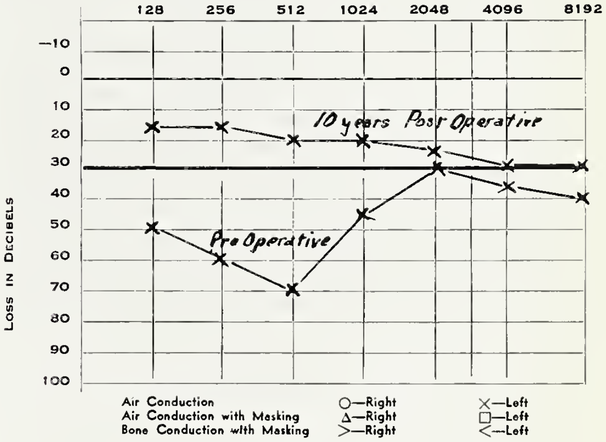

FIGURE VII

Audiogram of a girl age 15 years at operation. Typical audiometric picture of otosclerosis but she had no ear canal and at operation the drum was replaced by bone. A fenestration and reconstruction of the middle ear produced an improvement to above the serviceable level which has been maintained over 10 years.

What one does depends entirely on what is found at operation. If the footplate of the stapes is fixed, the round window free and the middle ear an air containing cavity, one would do a fenestration with

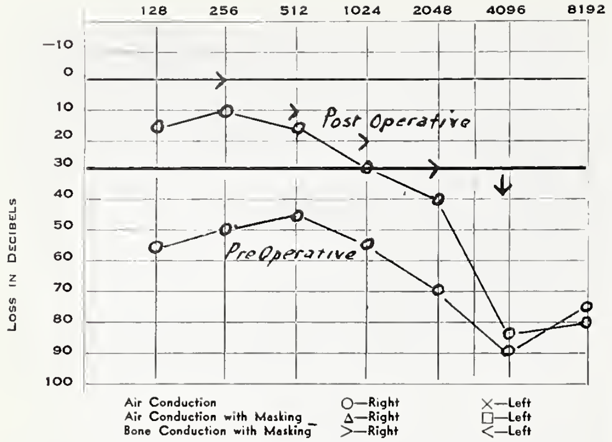

Figure VIII
Audiogram of a man aged 55, deaf for 25 years from a mastoid operation. There is some involvement of the cochlear (2 highest frequencies) which is permanent. At operation the stapes did not appear to be fixed and measures were taken to fix it to meet the conditions for a fenestration. Apparently this was accomplished and serviceable hearing has been restored.

the expectation of a good result. One patient will illustrate this. This will illustrate the great interrelation of all these procedures.

There are certain inherent difficulties in most tympanoplasties since one is dealing primarily with a free graft which isn't always certain to take. Recently Rambo made a different approach in those patients with a quiescent or adhesive type of process whom in the past would require a radical mastoidectomy. He reconstructed the middle ear with a pedicle flap from the temporal muscle and then did a fenestration. He has only done a few cases but obtained excellent results. This work is too new to be evaluated as yet. In a patient on whom I performed this operation there has been a 10 to 15 decibel increase in hearing throughout all frequencies at the end of three months. While thi is not enough to be classified as truly successful i does indicate that the principle is correct.

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MANAGEMENT OF BLEEDING FROM ESOPHAGEAL VARICES

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THE goal of treatment of portal hypertension and bleeding esophageal varices is the control of hemorrhage and the prevention of its recurrence. Publications have dealt chiefly with the selection of cases, operative mortality, and technical matters of interest to those entrusted with definitive treatment, but have not elaborated upon two important points: (1) the practical measures that may be taken by the general practitioner who sees the patient first, and (2) the effectiveness of the various operative procedures in preventing recurrent bleeding.

This discussion is presented in the belief that it is the *initial* treatment of the cirrhotic patient with bleeding varices that largely determines whether or not he will survive a bleeding episode and recover to the extent that surgical measures may be safely undertaken to prevent recurrent hemorrhage. A program of management is outlined which may be carried out rapidly, is adaptable to the community hospital, and offers the patient a maximum opportunity for survival.

THE PROBLEM IN THE BLEEDING CIRRHOTIC PATIENT

The high mortality associated with gastrointestinal bleeding in cirrhotic patients is well known. Approximately one quarter to one half of any group of cirrhotic patients will bleed each year, and the mortality due to hemorrhage is from 25 to 75 per cent. Half of those who survive will bleed again within the year with a mortality of 50 per cent.[1, 2] The reserve of the damaged liver is easily compromised by shock, anoxia, severe infection, or the presence of a large amount of blood in the intestinal tract. The essentials of emergency treatment are *rapid control of bleeding, protection against infection, purgation of the bowel, restriction of sodium,* and *intravenous administration of dextrose.*

Emergency major surgical operations are poorly tolerated by cirrhotic patients, as shown by an average emergency mortality of more than 50 per cent.[3, 4] Balloon tamponade, on the other hand, will readily control bleeding in from 80 to 90 per cent of patients.[5] Bleeding not readily controlled by tamponade requires the least traumatic surgery necessary to control it, through an approach that will permit appropriate treatment of bleeding lesions other than the varices. Transthoracic suture and mediastinal packing are not suitable therefore, and gastric transection, esophagogastrectomy, or emergency shunt seldom are necessary.

Noncirrhotic patients with extrahepatic portal block and bleeding varices will tolerate emergency major surgery well, but tamponade and further evaluation of the patient are safer when little is known about the patient.

Children with unsuspected postnecrotic cirrhosis and bleeding varices may not survive surgery that is undertaken in the mistaken belief that because they are children they must have extrahepatic portal block. The diagnosis of post-hepatitic cirrhosis in children is being made with increasing frequency. Reliance upon liver function studies or gross appearance of the liver may be misleading; biopsy of the liver is the only certain way of determining the presence or absence of cirrhosis.

EMERGENCY CONTROL OF BLEEDING

Balloon tamponade, using the recently redesigned triple-lumen Sengstaken-Blakemore tube*, offers the safest, most rapid and effective means of controlling esophageal bleeding and of making the patient safely *transportable* (Fig. 1). The principle of its use is *lateral* tamponade of varices by means of a triple-lumen tube with a long esophageal balloon reinforced at top and bottom to prevent herniation into the pharynx or the stomach, and a distal gastric balloon that serves chiefly to prevent regurgitation of the tube, and secondarily to tamponade varices in the gastric fundus when light traction is applied to the tube (Fig. 2). The eccentric doughnut shape apparent in Figure 1 is for the latter purpose. The central large lumen is for gastric aspiration and feeding. Unlike the single large gastric balloon advocated by some, which depends upon strong traction to occlude all venous collateral vessels at

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**Manufactured by the Davol Rubber Company, Providence, Rhode Island.*

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the esophagogastric junction, the Sengstaken-Blakemore tube may be left in place for weeks, if necessary, to prevent further bleeding while the patient is being prepared for a definitive operation. When a significant amount of traction is required to control bleeding, it must be released after 24 hours to prevent mucosal erosion and necrosis. If new bleeding occurs at this point, other measures discussed below are in order.

In practice it is useful to have readily available a tray bearing a balloon, an atomizer containing 5 per cent tetracaine (Pontocaine) hydrochloride or 10 per cent cocaine, a large-stemmed 50-cc. syringe, two rubebr-shod clamps, a glass Y tube, and rubber tubing for attachment to any standard sphygmomanometer (Fig. 3). The patient should

be kept under sedation with liberal doses
meperidine (Demerol) hydrochloride unless he
comatose. The nares and pharynx are sprayed wi
the topical anesthetic solution; the balloons are d
flated; and the tube, lubricated with a wate
soluble lubricant, is passed through the nose in
the stomach while the patient sips water—the nu
bers on the tube being kept toward the patient
right side to insure that the eccentric portion of t
gastric balloon will protrude toward the fundus
the stomach. The gastric balloon is then inflat
with 150 cc. of air and the tube is withdrawn un
the gastric balloon engages at the esophagogast
junction. Then the tube is taped to the plast
sponge block in order to prevent pressure necro
of the nasal ala. The esophageal balloon tube

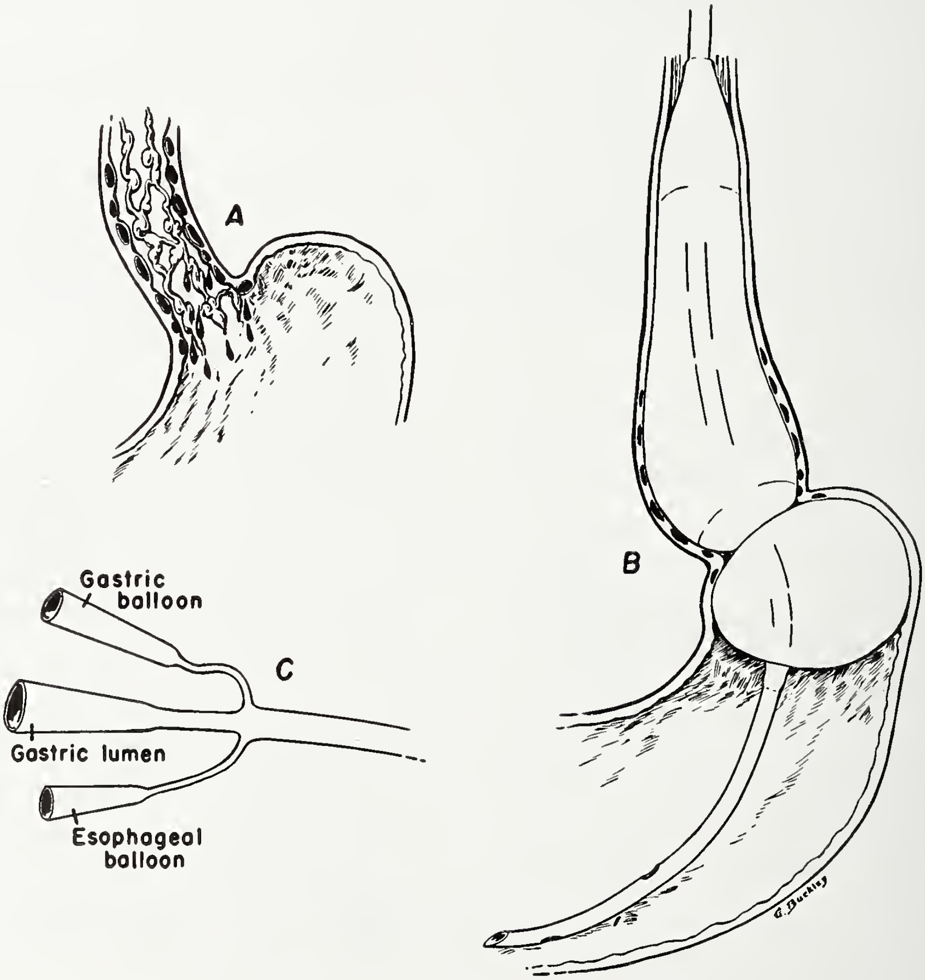

FIGURE 1

Diagram demonstrates the principle of *lateral* tamponade of esophageal varices with the Sengstaken-Blakemore tube. bleeding esophageal varices; *B,* esophageal and gastric balloons and gastric tube in place; *C,* proximal aspect of tube.

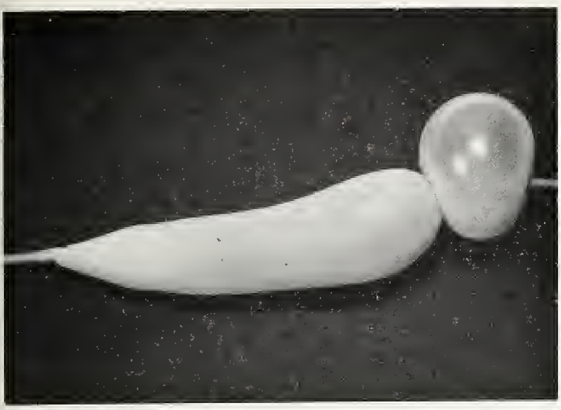

Figure 2

Photograph of the inflated Sengstaken-Blakemore tube. Note the eccentricity of the gastric balloon for positioning it in the gastric fundus.

attached to the Y tube, the other limb being attached to the sphygmomanometer. A rubber hand bulb is attached to the remaining end of the Y tube and the esophageal balloon is inflated to an initial pressure of 45 mm. of Hg, and the tubes of both esophageal and gastric balloons are clamped with the rubber-shod clamps to prevent air from leaking from the system (Fig. 3). The stomach tube is then thoroughly irrigated and aspirated with copious amounts of tap water until the return is clear; then the gastric lumen is put on continuous intestinal suction. If the return is still clear one-half hour later, suction is discontinued and castor oil (60 cc.) and neomycin (1 gm.) are instilled into the tube for the purpose of purging the intestinal tract of blood which may be converted by the intestinal organisms into ammonium compounds which may produce coma. An hour later suction is resumed and continued except during instillation of purgative and neomycin every 6 hours (for a total of three doses), and during irrigation of the tube every hour. If an esophageal-balloon pressure of 45 mm. of Hg is poorly tolerated by the patient, the pressure may be reduced, preferably by 5-mm. stages, to the lowest pressure that will control bleeding.

Intravenous hydration and restoration of blood volume are then effected with special care to administer as many calories as possible in the form of carbohydrates. Systemic antibiotic agents such as procaine penicillin (300,000 units) and streptomycin (0.5 gm.) every 12 hours, or one of the tetracycline drugs (500 mg.) every eight hours, should be administered parenterally to supplement the effect of neomycin in the bowel and to control possible respiratory infection to which these patients are subject during intubation. Vitamin K_1 (50 mg. intravenously), ascorbic acid (1,000 mg.), vitamin B_{12} (50 μg.), and multiple vitamins rich in vitamin-B complex should be given after blood has been withdrawn for base-line studies of liver function.

Retching and substernal discomfort caused by the tube usually are alleviated by instructing the patient to hyperventilate for a minute, by elevating the head of the bed of the conscious patient, by keeping the stomach empty, and by adequate sedation with meperidine hydrochloride. Because the inflated esophageal balloon completely obstructs the esophagus, salivary secretions cannot be swallowed; therefore, the conscious patient is instructed to expectorate all secretions. Comatose patients require frequent pharyngeal suctioning. It is amazing how well the tube is tolerated after the first few hours. Periodic checking of the amount of tension on the tube is necessary in order to take up slack as the diaphragmatic crura of the esophageal hiatus relax. Esophageal-balloon pressure should be checked every half hour.

On the third day of tamponade the pressure in the esophageal balloon may be reduced to 25 mm. of Hg and, if no bleeding occurs, the balloon may be deflated and the tube may be removed on the fourth day. This time interval is based roughly upon the "lag" period for healing of most soft tissues. If a definitive operation to reduce portal hypertension is to be performed in another hospital, the balloon should be left in place while the patient is being transported. After an episode of bleeding, most cirrhotic patients require a minimal period of three weeks for complete recovery, and consideration of a major surgical procedure.

The appearance of stupor, bizarre behavior, a flapping tremor of the hands when the arms and fingers are extended, along with a marked fetor hepaticus usually herald coma. These changes may be due in part to ammonium intoxication, which is discussed below.

FAILURE OF BALLOON TAMPONADE

If, within a half hour after passage of the tube, irrigation of the stomach still returns red blood, it is obvious that bleeding has not been controlled. From 10 to 20 per cent of cirrhotic patients bleed from gastric varices, peptic ulcers, or other lesions out of reach of balloons.[6] Such patients require immediate surgical intervention for control of hemorrhage. The most limited operation that will control bleeding is indicated if the patient has serious hepatic impairment. Endotracheal cyclopropane is the anesthetic agent of choice since it induces anesthesia in the patient rapidly, provides adequate relaxation, and permits the use of a high concentration of oxygen. Spinal analgesia may be dangerous if coagulation factors are abnormal, as they so frequently are in these patients. Transabdominal suture of gastric varices beyond the reach of the balloon, through a simple gastrotomy wound in the anterior wall of the stomach, can be performed rapidly and with the least risk. All time-consuming and nonessential procedures must be avoided; these include measurement of portal pressure and suture of esophageal varices that can be reached by the balloon. Considerable judgment is required in deciding whether or not to proceed with gastric resection for treatment of a bleeding duodenal or gastric ulcer in a patient with obvious impairment of the liver. Gastric resection is usually mandatory for hemorrhagic gastritis, frequently is necessary for bleeding duodenal ulcer, but suture usually suffices for bleeding gastric ulcer.

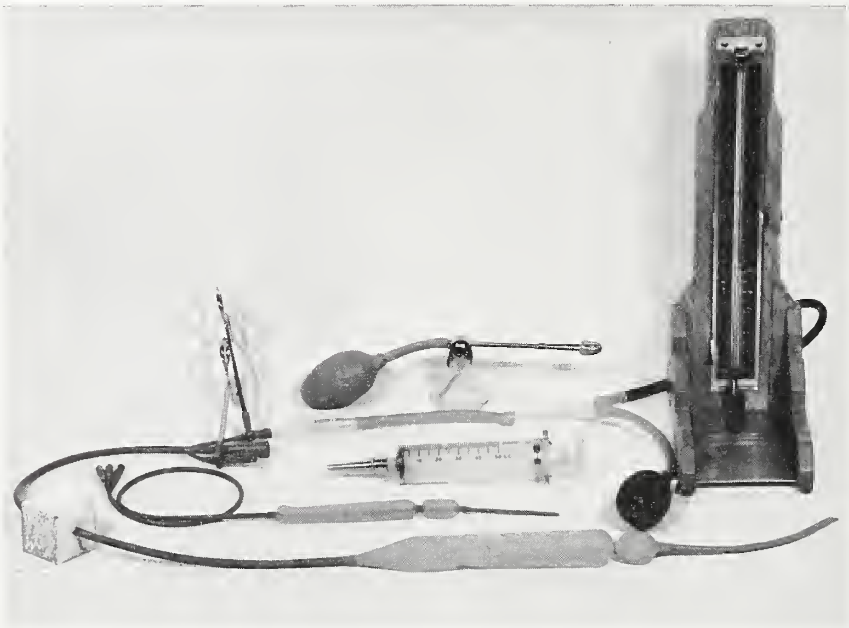

Figure 3
Photograph of the standard equipment used in passing the Sengstaken-Blakemore tube. Note the small pediatric-sized tube

AMMONIUM INTOXICATION AND STUPOR

It is now apparent that an abnormally increased concentration of ammonium ions in the blood will produce symptoms progressing from stupor to bizarre behavior, coma, and death. The source of the ammonium in most of these patients appears to be from bacterial decomposition of blood within the intestinal tract. The source in the nonbleeding cirrhotic patient may be his dietary protein. The increase in peripheral blood ammonium is due to inability of the damaged liver to convert ammonium to urea at a normal rate, and to direct passag of portal blood into the peripheral circulatio through naturally occurring portasystemic shunt in the esophageal and other collateral systems. Th liver of the noncirrhotic patient with gastrointestinal bleeding is able to convert ammonium to ure rapidly, and no significant shunts exist. The noncirrhotic patient who has a large surgically create portasystemic shunt and who takes a high-protei diet may have high concentrations of ammoniu in the peripheral blood because the liver is bypassed. Prolonged oral administration of neomyci has proved effective in protecting most patient from coma, thereby permitting ingestion of the all important high-protein diet. The actual incidenc of chronic ammonium poisoning in patients wh have surgical shunts is not determined, but clinically is less than 5 per cent.

Two measures have proved effective in rapidl lowering the concentration of ammonium in th blood and, if the coma is predominantly due to tha condition, in dramatically reversing coma withi hours. The first measure aims at reducing the numbers of intestinal organisms that produce the ammonium, and consists of the administration o from 1 to 2 gm. of neomycin by mouth or by nasogastric tube, every six hours, along with the us of purgatives to rid the bowel of blood. The secon measure consists of the intravenous administration of 25 gm. of arginine hydrochloride with 50 gm. of dextrose in 500 ml. of water, or of one of the newer commerical preparations of the glutamic acid salt of arginine every six hours. Although no harmful effects of these preparations are known, other than acidosis from arginine hydrochloride and alkalosis and sodium overload from sodium glutamate, they are best reserved for the appearance of neurologic changes or the demonstration of elevated concentrations of ammonium in the blood.

One of the earliest signs of impending coma may be a flapping tremor of the hands when the arms and fingers are extended forcibly by the patient. This sign is an indication for starting arginine treatment and is of greater clinical significance than is fetor hepaticus.

TABLE I—TREATMENT OF INTRAHEPATIC BLOCK FOR PORTAL HYPERTENSION (DATA FROM A REVIEW OF THE LITERATURE)

				CAUSE OF DEATH					
		OPERATIVE MORTALITY		HEMORRHAGE		HEPATIC FAILURE		RECURRENT HEMORRHAGE	
OPERATION	TOTAL NUMBER OF PATIENTS	NUMBER OF PATIENTS	PER CENT OF TOTAL	NUMBER OF PATIENTS	PER CENT OF TOTAL	NUMBER OF PATIENTS	PER CENT OF TOTAL	NUMBER OF PATIENTS	PER CENT OF TOTAL
Portacaval shunt	556	76	13	5	1	23	5	20	4
Splenectomy	136	52	38	9	10	16	19	33	48
Splenorenal shunt	107	18	16	9	10	20	22	33	37
Hepatic artery ligation	40	7	18	0	—	8	24	9	23
Suture	28	8	28	0	—	11	39	9	32
Esophagogastric resection	11	4	36	1	14	1	14	1	14
Splenic artery ligation	8	0	—	1	12	0	—	1	12
Devascularization	7	3	43	0	—	0	—	1	25
Mediastinal packing	6	0	—	2	33	0	—	3	50
Makeshift	4	0	—	1	25	0	—	3	75
Vagotomy	2	0	—	0	—	0	—	1	50

PREVENTION OF RECURRENT BLEEDING

During the past fifty years numerous operations have been devised to treat portal hypertension and its complications. Omentopexy and portacaval shunts were designed to increase portal collateral flow. Splenectomy, ligation of the splenic and of the hepatic artery, devascularization of the stomach, and gastric transection were purported to reduce flow into the portal bed or into the varices. Transthoracic and transabdominal suture of varices and esophagogastric resection were aimed at attacking the varices directly.

To evaluate the results of the various operations in preventing recurrent bleeding, the literature was reviewed and all reports giving incidence of recurrent bleeding were compiled. These data are summarized in Tables I and II. These are gross data with periods of follow-up ranging from a few months to 10 years, the longer periods being follow-ups of shunting operations. The data for several operations are too few to justify comparative analysis, and they indicate the paucity of follow-up reports of these procedures, usually because they have been abandoned.

It is clear that the portacaval shunt offers the best protection against further bleeding. It is interesting and significant that the most effective operation is that which permanently reduces portal pressure. The reasons for this would appear to be that prevention of *surge pressure,* as occurs with coughing, straining, or any maneuver that increases intraabdominal pressure, is best accomplished by a large portal shunt at the confluence of the portal radicles emptying directly into the low-pressure vena cava.[7] Pressure studies have shown that only transient reduction in pressure results from ligation of the hepatic or the splenic artery, or from splenectomy.[8] The splenorenal shunt is smaller, more subject to occlusion, and less effective than is the portacaval shunt. The superiority of the portacaval shunt probably is due to the fact that the flow through such a shunt is proportional to the fourth power of the radius of the shunt. The average splenorenal shunt is 10 mm. in diameter; whereas, the average portacaval shunt is 20 mm. or more in diameter.

For patients with extrahepatic portal block, the splenorenal shunt offers the best hope for prevention of bleeding, and for this reason splenectomy

Table II—Treatment of Extrahepatic Block for Portal Hypertension (Data from a Review of the Literature)

OPERATION	TOTAL NUMBER OF PATIENTS	OPERATIVE MORTALITY		RECURRENT HEMORRHAGE		LATE FATAL HEMORRHAGE	
		NUMBER OF PATIENTS	PER CENT OF TOTAL	NUMBER OF PATIENTS	PER CENT OF TOTAL	NUMBER OF PATIENTS	PER CENT OF TOTAL
Splenectomy	233	18	8	154	72	18	8
Splenorenal shunt	121	5	4	33	27	5	4
Makeshift	25	1	4	13	52	3	13
Suture	19	0	—	9	47	0	—
Esophagogastric resection	8	0	—	5	62	1	13
Devascularization	6	0	—	6	100	0	—
Mediastinal packing	4	0	—	3	75	0	—
Portacaval shunt	1	0	—	0	—	0	—

should not be performed when esophageal varices are present unless the surgeon is prepared to proceed with a splenorenal shunt. When no shunt is possible because of previous splenectomy, or because the splenic vein is thrombosed or is shown by splenoportography to be unsuitable for anastomosis, suture of varices and splenectomy offer a retrenchment short of esophagogastric resection. An exception to this is the child with a small or anomalous splenic vein; transthoracic suture of varices alone should be performed and the spleen left intact until it is clear that growth has not improved the size or the quality of the splenic vein for the purposes of anastomosis. Premature splenectomy for thrombopenia and varices usually is not justified unless a splenorenal shunt can be effected simultaneously. Esophagogastric resection usually has not been performed except as a last resort, because of the mortality and morbidity attendant upon the operation, the postoperative nutritional problems, and because most of the patients with extrahepatic portal block are children.

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SNARES AND DELUSIONS IN THE RECOGNITION OF "PERNICIOUS ANAEMIA"

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SUMMARY

Recent tools for establishing the diagnosis of pernicious anaemia are the blood smear, the bone marrow biopsy specimen, biological assay of serum vitamin B_{12} levels, and measurements of radioactive B_{12} absorption and excretion. Presumable neurological and psychiatric conditions have been found to be due to pernicious anemia. A better term is vitamin B_{12} deficiency. The snares referred to here are the failure not only to use the diagnostic methods available, but also to recognize that the use of multi-vitamins or dietary supplements which contain B_{12} or folic acid may mask a true anemia.

There is no malady in which accurate diagnosis is more important or more rewarding than it is in so-called "pernicious anaemia". Consider how few progressive conditions are so amenable to specific and effective remedies. And yet only too often we insult the memory of those, from Whipple, Minot, Murphy and Castle onwards, who have given us the keys—the insults stemming from delays and failures to recognize the existence of this condition in our patients.

True, "pernicious anaemia" is relatively rare. True it is usually of stealthy development. But there is more to be said.

We now have at our disposal tools of considerable precision which permit us to establish the diagnosis with refinement. To the knowing eye macrocytosis may be evident on the peripheral blood smear and may arouse suspicion. Bone marrow biopsy in competent hands is a rapid and safe procedure while much information may be gleaned from well prepared material. Of more recent introduction are biological assay of serum vitamin B_{12} levels and measurements of radioactive B_{12} absorption and excretion.

The onus, then, is upon us to use these diagnostic tools, which we shall do when the suspicion of "pernicious anaemia" arises in our minds. And so to the point. When do we fail?

My colleague, Dr. Henry Landry, and I were much surprised when recently we completed a study, to be published later in full detail, of all cases of "pernicious anaemia" diagnosed *de novo* in our hospital during the past four years. Our surprise arose when we realized that no less than a third of the patients presented initially as neurological problems which, sometimes readily, sometimes only with difficulty, could be classified as "subacute combined degeneration of the spinal cord". In truth, we should not have been surprised because we were merely swallowing a lesson which has been known, as MacDonald Holmes pointed out to us, for at least 30 years from the clinical standpoint and for even longer by the morbid anatomists.

In most of our neurological cases, despite the emphasis upon peripheral neuropathy or upon myelopathy, there was never much difficulty in demonstrating macrocytosis in the peripheral blood or megaloblastic changes in the bone marrow. That we did not find any instances of myelopathy with normal erythropoiesis, a combination well enough established, is likely due to lack of suspicion at the clinical level as to this possibility.

It is pertinent at this juncture to mention the case of a 60-year-old man with symptoms of a peripheral neuropathy whose occupation was such as to suggest the possibility of lead poisoning. On examining a blood smear for punctate basophilism, the presence of a few macrocytes was appreciated. Despite a haemoglobin level of 14.0 G. per cent, this man had only 3,820,000 red cells per cubic millimeter and the mean corpuscular volume was 105 cubic microns. Partial or incomplete megaloblastic transformation of erythropoiesis could be recognized in his bone marrow. Intramuscular injections of vitamin B_{12} resulted in a reticulocyte peak of 8 per cent, restoration of his blood picture to normal, and improvement in the symptoms and signs of nerve damage.

More impressive yet were three of our cases which were seen initially because of psychotic manifestations and it might be of interest to enlarge upon some aspects of this problem. In two of these three cases signs could be elicited which indicated the existence of an organic myelopathy. In all three there was recognizable macrocytosis despite haemoglobin levels scarcely below "normal" values. In two of the three multivitamin tonics had been taken which contained B_{12}, folic acid or both. In all three the abnormalities of thought and behaviour cleared up rapidly, within a week or so of the commencement of intensive B_{12} therapy.

Of particular interest must be the patient without evidence of peripheral nerve or spinal cord involvement. A woman of 54 years, she had been considered elsewhere by competent authorities as an example either of an organic presenile dementia or else of a frontal lobe tumor. Physical restraint was necessary for her and the general thought was to have her transferred to a mental hospital. Routine blood examination showed a haemoglobin level of 11.8 G. per cent but, fortunately, macrocytosis was appreciated on the peripheral blood smear. The mean corpuscular volume proved to be 118 cubic microns and erythropoiesis in the bone marrow showed incomplete megaloblastic change. A reticulocyte peak of 14.5 per cent followed the administration of vitamin B_{12}. Improvement in her mental condition became evident eight days later and she was discharged home almost "her old self" after a further nine days.

Our interest thus having been aroused, we rapidly accumulated evidence that such patients may stand a chance of being recognized for what they are by clinicians familiar with the pattern, but never by those whose attention has not been drawn to the possibility. MacDonald Holmes reported that 14 of his series of 25 cases of subacute combined degeneration of the cord had cerebral manifestations and that recovery ensued in 11 of the 14 under appropriate therapy. In later correspondence he mentioned he had found cases with cerebral symptoms free from mylopathy. It is of exceptional importance that of his six subsequent cases, four were inmates of a mental asylum and were detected when the routine use of microbiological assay of serum B_{12} levels was introduced for all instances of "organic dementia".

In a recent conversation with Dr. Harold Read of Halifax, he told me of two similar cases which he had disclosed because of macrocytosis appreciated while he, at the request of a psychiatric colleague, performed complete physical evaluation of these demented patients prior to their committal to an institution.

Thomas Addison, in the paper cited by so many as being the first to describe "pernicious anaemia", said that "the mind occasionally wanders". But Marcel Bessis quotes, with obvious relish, from Robb-Smith's essay on "The Advantages of False Assumptions". In this is asked the question: "Who described pernicious anaemia, Combe, Addison or Biermer? Combe described a single case. Addison was very confused. Biermer really added nothing".

It is, however, clear that in 1902 Preobrajensky had the privilege first to record the morbid anatomy of the brain lesions with which we are concerned and this may be taken as a vital step in a series of disclosures which have led to the present trend of thought regarding "pernicious anaemia" as a dangerous misnomer. If we were instead to follow the suggestion of Jewesbury and use the term "vitamin B_{12} deficiency", we would be more likely to think of effects not only upon erythropoiesis, but also upon peripheral nerves, spinal cord, brain, mucous membranes and, likely enough, upon the entire organism. We might further give thought to the cause of B_{12} deficiency in any particular case as there are mechanisms other than that of the classical gastric atrophy; this matter, not pertinent to our theme, is well summarized by Davis and Brown.

We must, therefore, reconcile ourselves to the fact that manifestations appropriate to any of the systems involved may appear in any order or sequence in time. Commonly it is anaemia that first becomes patent. We have remarked upon presentation as a neuropathy or as a myelopathy. Adams has described instances in which there was glossitis as the only complaint. He found minimal, but recognizable, abnormality in the bone marrow and low serum B_{12} levels, without anaemia and without clinical evidence of neurological disorder; response to therapy substantiated his evaluation of these cases.

In entitling this essay I was guilty of what is tantamount to a mixed metaphor. The "snares" I had in mind include that of failure to use the diagnostic methods available to us, for it is surely inexcusable in this condition not positively to confirm or to refute the diagnosis, should the question arise at all. Furthermore we should be aware that masking of anaemia may follow the use of multivitamin tonics or dietary supplements which happen to contain B_{12} or folic acid. Particularly may nerve, cord or brain damage progress apace while nisleadingly, blood values are maintained or even mproved, a point well brought out in two of our ases. This second "snare" may be avoided by quesioning our patients carefully as to their use of itamins and by remembering the possible impliations should such supplements be a habit.

Thirdly, we might evade yet another "snare" hould we discard the separate titles of "pernicious naemia" and of "subacute combined degeneration of the spinal cord", replacing them by and includng other manifestations in the overall phrase 'vitamin B_{12} deficiency", a phrase not only one vith etiological significance but also one implicitly questioning the cause of such deficiency.

Those who have followed my train of thought vill anticipate the explanation that reference to 'delusions" in the title of my modest offering is in attempt to emphasize an aspect of B_{12} deficiency which only too easily can be overlooked—cerebral esions with psychosis. While some anaemia and ome signs of myelopathy are usual accompaninents these features may be absent, trivial, or eadily missed.

Does this not remind you of myxedema and of iow for many years we have been alert to the horible possibility of dooming a patient to existence and death in an asylum should we fail to recognize hyroid hypofunction? But there is in myxedema a classical facies which may initiate a train of thought in the mind of the clinician, whereas in B_{12} deficiency there is no characteristic appearance. Perhaps there may be physical signs indicating myelopathy of significant distribution. Perhaps an alert laboratory may report suspicious macrocytosis. It is clear, however, that the matter may depend solely upon remembrance by the physician that slow cerebration, memory defects, confusion, depression or frank dementia may be the initial manifestation of vitamin B_{12} deficiency.

Acceptance of these views, which are, I would repeat, by no means original, makes it incumbent upon us to regard with a quizzical eye all instances of organic dementia which have no apparent cause. Competent reports upon the peripheral blood and upon the state of the bone marrow will be sought. Should these prove indecisive, an estimate of the serum vitamin B_{12} level may give low figures and response to intensive therapy would then affix the seal of proof.

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ELECTRORETINOGRAPHY AND ELECTROMYOGRAPHY

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SUMMARY

The electroretinograms and electromyograms are not only aides in more accurate diagnoses of ocular diseases and ocular manifestations of systemic disease but basic research tools. Their importance thus relates to all physicians, regardless of their type of practice.

Electroretinography (ERG) is a new and important tool to be used in the determination of the electrophysiology of the retina from the clinical and experimental point of view. For many years it has been known that an electrical potential is produced when the retina is stimulated by light. With development of a suitable electrode it has been possible to measure and record this electrical potential in the eyes of human beings. The value of ERG has been established in the diagnosis of conditions such as retinitis pigmentosa, siderosis retinae, and, with numerous reservations, retinal detachment. The electroretinogram is of value in determining retinal function when direct visualization of the retina is impossible or obscured by medial opacity, such as cataract, corneal opacity, or vitreous opacity.

Inasmuch as the technique used by Karpe is primarily a representation of the rod function only, this method can not be relied upon to give a measure of macular or central visual function where cones are predominant. By utilizing the known facts about the differences in physiologic behavior of rods and cones, it has been possible to stimulate and record selectively the electrical potential of the macular area. At the present writing it is possible to determine macular pathology, utilizing the electroretinogram prior to cataract surgery when the macular area cannot be viewed by the ophthalmoscope. This is important in determining whether the postoperative result would warrant the surgery.

One of the important types of cases in which the electroretinogram can give some important clinical clues is the young child with obvious visual problems but ophthalmoscopically normal eyes. Problems of this type have often puzzled not only the parents but also the pediatrician, ophthalmologist, and neurologist. I know of one case of hysterical blindness in a child that became apparent only after exhaustive consultations including x-rays of the skull and optic foramina. Finally, an electroretinogram was reported as normal.

The field of the electroretinogram has been extended to research in strabismus problems such as abnormal retinal correspondence. Similar advances in the electrophysiology of ocular muscles has been made both from a clinical and experimental point of view. For example, proof that an active divergence mechanism exists has been aided considerably by clinical electromyographical demonstration of firing in the lateral recti muscles during abduction. Electromyographically, the lateral recti muscles contract early in convergence; the position of convergence is reached only by an oscillating process of the medial rectus firing followed by lateral rectus firing. Presumably, this is to check the strong contractions of the medial recti.

In summary, the electrophysiology of the retina and the ocular muscles are opening sources of information in a sense comparable to the electroencephalogram and electrocardiogram. Electroretinograms and electromyograms are new tools of value not only to the physiologist but also to the ophthalmologist, the pediatrician, internist, neurologist, neurosurgeon, and the psychiatrist.

CHRONIC SILO FILLER'S DISEASE

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SUMMARY

A case is presented which is thought to represent silo filler's disease, caused by repeated inhalation of nitrogen dioxide and which differs in its clinical course from previously described acute and subacute cases. Adrenal cortical steroid therapy was used with apparent benefit in the management of the disease. It is suggested that toxic oxides of nitrogen are formed over hay silage as well as over corn silage under conditions of drought and high temperature. The possibility that chronic pulmonary fibrosis in farmers may be caused by repeated exposure to silo gases must be considered.

Silo filler's disease or silage gas poisoning has recently been described as a clinical entity occurring in agricultural workers. Although nitrogen dioxide has been known as a toxic gas in industry for many years, it was not recognized as a hazard to farmers until 1956.[1,2,3] Prior to that time the occasional death in workers overcome by silo gases was attributed to anoxemia or to an excess of carbon dioxide.

On analysis of the case histories so far described in the literature, there is found a rather constant pattern which constitutes the syndrome of silo filler's disease. All of the patients have been farmers working in silos in late summer. All were exposed to the silo gases within about one week of the time that the silos were filled. Drought and high temperature have commonly prevailed at the time of exposure. These conditions have been shown to increase the amount of silage gases liberated. In all instances corn was the product placed

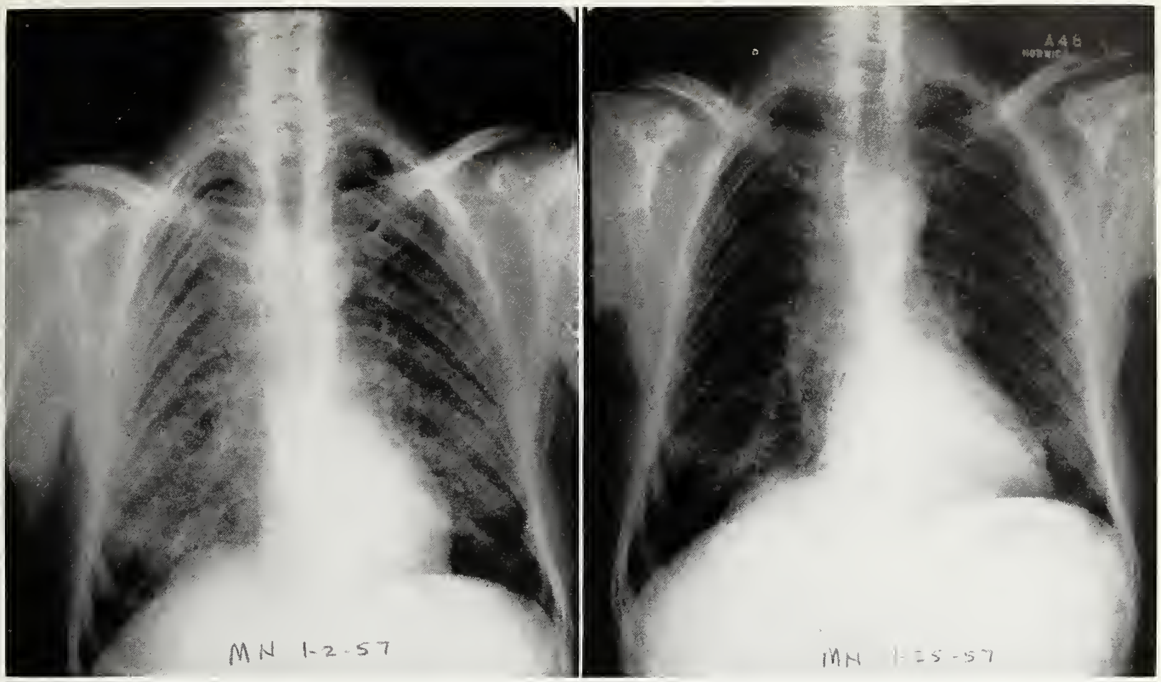

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FIGURE 1

(a) Admission chest x-ray film showing the diffuse, reticular, finely nodular infiltration.
(b) Clearing of the diffuse nodular infiltration after two weeks of prednisone therapy.

in the silo. In one case report a heavy nitrate fertilizer had been used.[2] In three of the eight cases reported, the patients described a yellow to brownish gas or haze immediately above the silage and in five cases an acrid, ammonia-like or "bleach-like" odor was noted. Those who recovered described the fumes as irritating and suffocating. Cough and dyspnoea were common symptoms. In those cases in which the patient was not rendered unconscious with death ensuing in a matter of hours, the patients seemed to recover with a remarkable relief of symptoms only to become acutely ill once again with a recurrence and intensification of symptoms several weeks after the initial exposure. This "saddle-back" course has been a common finding. X-ray examination of the chest during the acute period revealed innumerable, discrete, scattered, nodular densities throughout the lung fields. In those cases treated with adrenocorticoids, the results were dramatic in relieving symptoms and reducing toxicity. Rapid improvement was evident by x-ray examination of the chest. However, those who survived the acute episode without steroids also went on to complete or almost complete clearing of the lesions and relief of symptoms.

Delaney, Schmidt and Stroebel[1] of the Mayo Clinic have reported two cases of silage gas poisoning and concluded that the chemical pneumonitis was due to inhalation of excessive amounts of the oxides of nitrogen. One of their patients died in five days of an acute, diffuse pneumonitis, and the other survived after a two months illness with the characteristic "saddle-back" course. Lowry and Schuman[2] have reported four cases of nitrogen dioxide pneumonia in farmers exposed to silo gases. Two of their patients died after illnesses of one and two months, respectively, and postmortem examination revealed extensive bronchiolitis fibrosa obliterans. Both cases had the typical "saddle-back" course of illness. Their other two cases survived after a "saddle-back" course of illness and became asymptomatic, but x-ray examination of the chest showed fine nodular densities in the lung fields four months after exposure in one and eight months after exposure in the other. Grayson[3] has presented two cases of silage gas poisoning. One patient expired in 29 hours and postmortem examination revealed an acute diffuse bronchopneumonic process with evidence of alveolar edema. The second patient had an acute illness characterized by cyanosis, tachypnea, toxicity, and diffuse

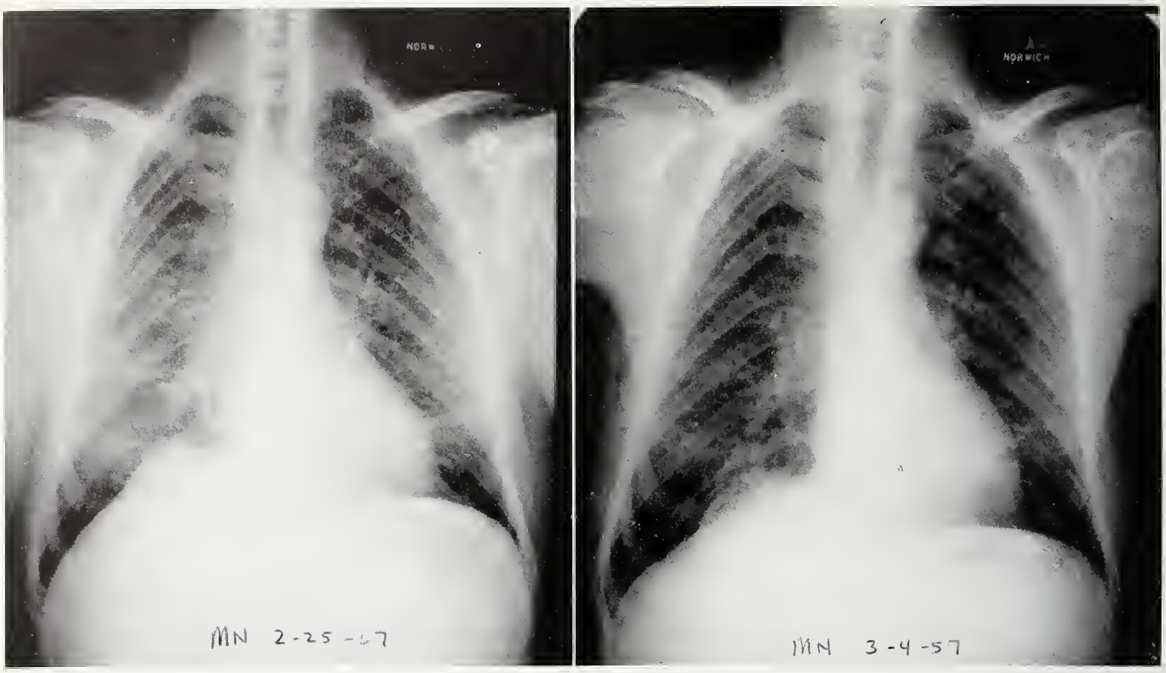

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Figure 2
(a) Recurrence of pulmonary infiltration after prednisone therapy was stopped for two weeks.
(b) Clearing of pulmonary infiltration one week after prednisone therapy was reinstituted.

patchy confluent infiltrations in both lung fields. This man recovered in approximately one week and physical examination and chest x-ray film nine months after the exposure revealed no abnormalities. Gas analysis studies were performed on samples of gases from the silos in which Grayson's two patients were poisoned and showed the gas to contain the various oxides of nitrogen.

All cases thus far reported have had acute or subacute poisoning and the patients have either expired or essentially completely recovered. Lowry *et al*[2,3] at the University of Minnesota have advanced the hypothesis that individuals exposed intermittently and repeatedly to small concentrations of nitrogen dioxide might conceivably develop chronic pulmonary fibrosis. Delaney *et al*[1] of the Mayo Clinic have speculated on the relationship of nitrogen dioxide pneumonitis and the syndrome of pulmonary fibrosis known as farmer's lung. They postulated that steroid therapy might be valuable in the treatment of nitrogen dioxide pneumonitis, not only as an aid in the management of the acute toxic episode, but also perhaps to prevent the late chronic pulmonary bronchiolitis and/or fibrosis, if indeed such pneumonitis does predispose to chronic pulmonary fibrosis. Lowry *et al*[2] used steroids in their two cases who survived.

The following case is reported as it is thought that it may represent a case of chronic silo filler's disease due to the intermittent exposure to low concentrations of nitrogen dioxide. No gas was collected from this farmer's silo for analysis since at the time he was in our hospital, no forage had been added to the silo for three months. However, there are certain clinical and historical features which suggest that silage gas poisoning was the etiologic factor in this man's disease.

CASE REPORT

M.N. was a 64 year old, white, married farmer who entered the Uncas-on-Thames Hospital on December 30, 1956 with a chief complaint of progressive shortness of breath of five months duration. He felt perfectly well until the middle of July, 1956. At that time he began to fill his silo with green grass hay consisting of timothy, alfalfa, and clover. After each load of hay was placed in the silo, sodium metabisulfite was added as a preservative. In the late summer of 1956, in the State of Connecticut, drought conditions prevailed and environmental temperatures were high. Because of the relatively poor crop of hay due to the drought, small amounts of hay were put into the silo frequently during the late summer months. The patient entered the silo about every second day and stayed from one to twenty minutes at a time, from the middle of July until September. He noted repeatedly a "brownish" haze immediately over the silage which at times

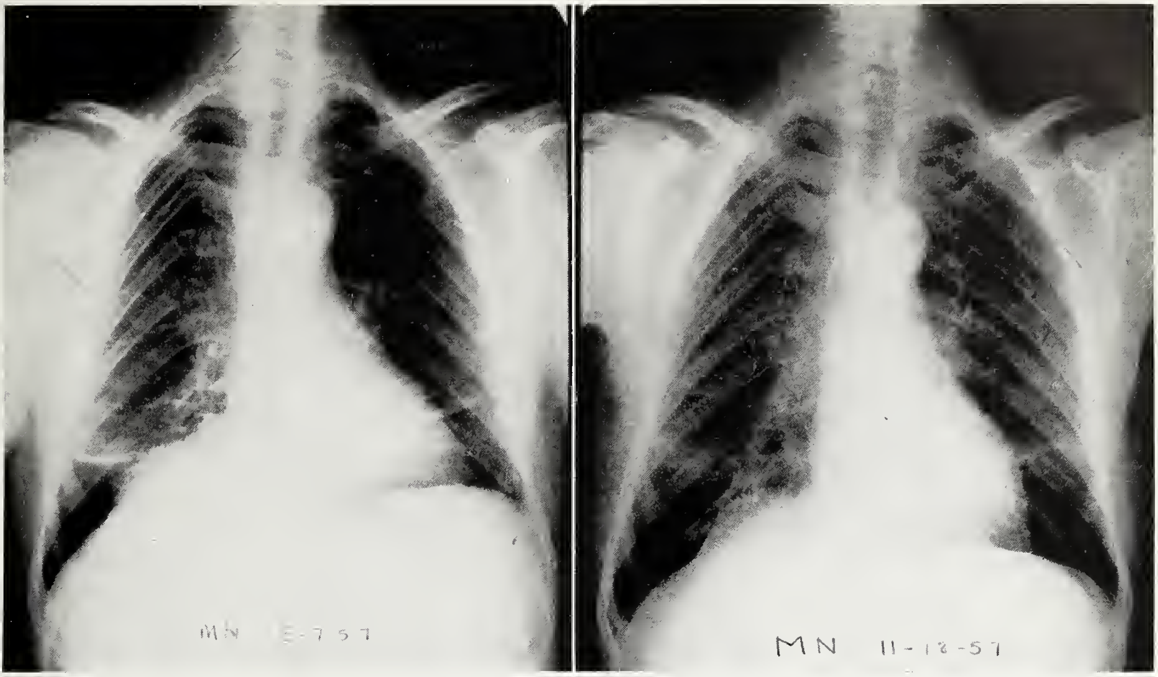

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Figure 3

a) Third admission chest x-ray film showing an increase in the transverse diameter of the heart but no recurrence of the nodular lesion.

(b) Chest x-ray film showing only a faint reticular pattern five months after prednisone therapy was discontinued.

ppeared to be "steaming up" from it. "It seemed to layer ut over the hay". He described the odor as "ammonia-like" nd stated that it was very irritating and frequently produced "choking" sensation. At first he found that the choking ensation and feeling of suffocation disappeared as soon as he eft the silo. As time went by he developed a dry hacking ough after exposure to the gases. As he continued to enter nd re-enter the silo during the ensuing months the symptoms f cough and feeling of suffocation seemed to increase in everity after exposure to the gas and did not entirely subside hen he was once more breathing fresh air. Cough and hortness of breath became progressively severe and because e associated these symptoms directly with entering the silo, e refused to enter the silo after the middle of September. During the following six weeks his cough became productive f whitish sputum, but was never blood streaked. In December he sputum became more copious and yellow in color, and ough and dyspnoea continued to increase. He was seen by is private physician who administered antibiotic therapy but here was no lessening of his cough or shortness of breath. 'or that reason he was referred to Dr. Michael A. Ferrara of he Seaside Sanatorium where an x-ray film of his chest revealed a diffuse, reticular and finely nodular infiltration hroughout both lungs. The patient was referred to the Uncas-on-Thames Hospital by Dr. Ferrara with the admitting liagnostic impression of "possible silo filler's disease".

Family history was not contributory and there was no istory of tuberculosis. Past history revealed that he had been a farmer for 39 years. There was no history of exposure to beryllium, silica, or any known toxic gas prior to the onset of his present illness. An x-ray film of his chest in November of 1953 was interpreted as normal. System review was significant for a weight loss of 18 lbs. in the two months prior to admission, occasional epigastric distress two to three hours after eating of several years duration, and occasional bouts of palpitation for the first time in his life in the two months prior to his admission. He denied chest pain, orthopnea, and peripheral edema. He did not smoke. There was no history of arthralgia or arthritis. There was no history of hematuria or urinary complaints.

Physical examination revealed a well developed male who did not appear acutely or chronically ill. He was slightly cyanotic and dyspneic on exertion but there was no orthopnea or dyspnoea at rest. The posterior pharynx was slightly reddened. There was no lymphadenopathy. The chest was somewhat barrel-shaped. The lung fields were clear to percussion. Auscultation revealed generally diminished breath sounds and there were medium moist rales throughout both lungs. Cardiac examination revealed a regular sinus rhythm. The heart was not enlarged to percussion. There were no thrills. No murmurs were heard. A_2 was greater than P_2. Blood pressure was 108/72. Abdominal examination was unremarkable except for a left, indirect inguinal hernia. The liver, spleen and kidneys were not palpable. On rectal examination the prostate was moderately enlarged, rubbery in consistency and no nodules were palpable. There was no clubbing or peripheral edema. The rest of the physical examination was within normal limits.

LABORATORY STUDIES

The hematocrit was 47 and the hemoglobin 13.9 grams. White blood count was 8,100 and the differential count revealed 66 polymorphonuclear leukocytes, 17 lymphocytes, 15 monocytes and 2 eosinophiles. Urinalysis was within normal limits with a specific gravity of 1.025. VDRL was nonreactive. The NPN was 37 mgm. per cent, fasting blood sugar 80 mgm. per cent, total protein 7.30 gm. per cent, serum albumin 3.48 gm. per cent, serum globulin 3.82 gm. per cent and calcium was 4.5 meq/L; electrolytes were normal. Sputum smear and culture revealed normal flora. Repeated sputum specimens for acid fast bacilli were negative on smear and culture. PPD tuberculin, histoplasmin, and coccidioidin skin tests were negative. Three stool specimens were guaiac negative. Two LE preparations were negative. Agglutination tests for typhoid, paratyphoid, and Brucella were negative. X-ray film of the chest revealed the heart and aorta to be within normal limits. The right dome of the diaphragm presented a slight bulge anteromedially. The costophrenic angles were clear. The hilar shadows were normal in configuration. Throughout both lung fields there was a diffuse, reticular, and finely nodular infiltration with no large areas of coalescence (Figure 1a). On fluoroscopy the right diaphragm moved somewhat less than the left. G.I. series was within normal limits. A lumbar puncture was performed and spinal fluid pressures and dynamics were normal. Cerebrospinal fluid protein and sugar were normal. There were five red blood cells per cubic millimeter but no white blood cells. Culture of the spinal fluid was negative on smear and culture. Electrocardiogram was interpreted as normal. The three second vital capacity was 1.9 liters (53.6 per cent of predicted) and the maximum breathing capacity was 62.5 liters per minute (69 per cent of predicted.)

The patient was started on 30 mgm. of prednisone daily on January 12, 1957. There was great improvement in his shortness of breath and his cough decreased noticeably within several days. A repeat x-ray film of his chest on January 25 after two weeks of prednisone therapy showed a striking clearance of the diffuse infiltration throughout both lung fields (Figure 1b). There remained a faint reticular pattern but no definite nodulation. Repeat breathing studies revealed a vital capacity of 3.05 liters (86 per cent of predicted) and a maximum breathing capacity of 112 liters per minute (122 per cent of predicted.) During this period of prednisone therapy the patient became emotionally disturbed, expressing mild paranoid ideas and developed symptoms of depression. It was thought that these symptoms were due to steroid therapy and prednisone was gradually reduced by 2.5 mgm. amounts over a 16 day period. He received intermittent injections of ACTH GEL during this tapering off period. X-ray film of the chest on February 6 revealed no significant change when compared to the one on January 25. He was discharged on February 8, 1957 improved and was advised to return to the Out Patient Department in two weeks.

He was next seen on February 25, 1957. In the two week interim since discharge he had developed a recurrence of the productive cough and dyspnoea. He now had an afternoon temperature elevation to 101° F. He stated that these symptoms were more severe than those leading to his first hospitalization. He had visited his family physician who administered antibiotic therapy without any appreciable effect. X-ray examination of his chest revealed a recurrence of the nodular infiltrations throughout both lungs and there were horizontal bandlike markings in the left lower lung field thought to represent focal atelesctasis (Figure 2a). Because of the return of symptoms of increased intensity and the unfavorable changes on the chest x-ray film, the patient was readmitted to the Uncas-on-Thames Hospital the same day.

On physical examination he was slightly cyanotic, tachypneic at rest, and became moderately dyspneic on exertion. He did not appear acutely ill or toxic and was afebrile. No adenopathy was evident. The chest was clear to percussion. Auscultation revealed medium rales over the lower two-thirds of both lungs. Cardiac examination revealed a regular sinus rhythm with a rate of 80 beats per minute. The left heart border was percussed 7 cm. from the midsternal line in the fifth left interspace. No thrills were palpable. There were no murmurs. A_2 was greater than P_2. Blood pressure was 115/70. Examination of the abdomen was unchanged. There was no clubbing or peripheral edema.

LABORATORY STUDIES

The hematocrit was 46 per cent and the hemoglobin 13.5 gms. White blood count was 7,900 with a differential count of 46 segmented polymorphonuclear leukocytes, 12 stab forms, 22 lymphocytes, 18 monocytes, 1 eosinophile and 1 myelocyte. Urinalysis was normal. V.D.R.L. was nonreactive. Blood NPN was 40 mg. per cent. Serum electrolytes were normal. Sputum studies for significant pathogens including acid fast bacilli were once more negative. PPD tuberculin skin test was negative. LE preparation was negative. Electrocardiogram revealed no significant change. The vital capacity was 2.2 liters (64 per cent of predicted) and the maximum breathing capacity was 112 liters per minute (127 per cent of predicted.) Prednisone therapy was reinstituted on February 26, 1957 in doses of 10 mg. three times a day. A repeat x-ray film of the chest on March 4, 1957 revealed definite partial clearing of the infiltration in both lungs (Figure 2b). Breathing studies performed on March 6, 1957 revealed a vital capacity of 2.8 liters (81 per cent of predicted) and there was no significant change in the maximum breathing capacity. At this time prednisone was reduced 2.5 mg. daily to a maintenance dose of 20 mg. a day. X-ray examination of the chest on March 9, 1957 showed further clearing. The patient was feeling quite well once again, complaining only of an odd indescribable sensation in his chest. He was not dyspneic while walking about the wards and was discharged on March 10, 1957 with instructions to reduce his prednisone by 2.5 mg amounts over a four day period and then to continue a maintenance dose of 15 mg. daily.

He returned to the Out Patient Department March 18 and complained of easy fatigue and intermittent tightness across the anterior chest noticeable after moderate exertion. His shortness of breath was much improved. On physical examination some medium rales were heard at the bases of both ungs posteriorly. X-ray film of his chest showed slight urther clearing. He was advised to continue on the regime of 5 mg. of prednisone daily. Breathing studies performed uring this visit were unchanged.

When seen April 8, 1957 the patient complained of vague pigastric distress, abdominal bloating and anorexia. In addiion he described two episodes typical of paroxysmal nocurnal dyspnoea. On physical examination there was no vidence of cardiac failure. X-ray film of the chest showed ittle change in the pulmonary parenchyma but there was a lefinite increase in the transverse diameter of the heart when his film was compared with the one in early March. The atient was digitalized. Prednisone therapy was continued. Ie returned April 22, 1957 and stated that he had had no urther bouts of paroxysmal nocturnal dyspnoea. He did, owever, complain of substernal tightness precipitated by valking in cold weather and following moderately heavy xertion. This was occurring more or less regularly and he elt quite discouraged. There was no significant change in the xamination of the heart and lungs and there was no evidence f congestive heart failure. An x-ray film of his chest was nchanged. Electrocardiogram was unchanged.

At this point the possibility of diffuse collagen disease was gain considered in view of the multiplicity of his complaints eferrable to several organ systems. He re-entered the hospital n May 6, 1957.

At the time of admission the patient described a dull aching ain in the right upper quadrant of the abdomen, intermitent, short-lived discomfort in the costovertebral angle on the ight which on occasion would radiate into the right testicle; nd epigastric bloating aggravated by the intake of food. He omplained of occasional nausea without vomiting but stated that his bowel habits were regular and unchanged. The nausea was relieved by ingestion of bicarbonate of soda. The substernal pain, precipitated by exertion and promptly relieved in one to two minutes by resting, persisted, as did a minimal nonproductive cough. He stated that at times his urinary stream would stop during micturition and then become forceful once again. There was no dysuria or hematuria. On physical examination there was little evidence of cyanosis and no evidence of tachypnea. There were no palpable lymph nodes. The breasts seemed somewhat hypertrophied. The lungs were clear to percussion. Breath sounds were slightly diminished but no rales were heard. On fluoroscopy the right dome of the diaphragm had a double contour and it appeared somewhat more raised in its medial portion. Cardiac examination revealed a regular sinus rhythm. Pulse was 80. The apical impulse was felt 7 cm. from the midsternal line in the fifth left interspace. No thrills were felt; there were no murmurs. A_2 was accentuated. Blood pressure was 120/80. Abdominal examination was unchanged. The liver, spleen and kidneys were not palpable and there was no tenderness in the costovertebral angles. There was no peripheral edema.

LABORATORY STUDIES

The hematocrit was 51 per cent and hemoglobin 16.1 gm. White blood count was 6,800 with 51 polymorphonuclear leukocytes, 37 lymphocytes, 10 monocytes and 2 eosinophiles. Urinalysis revealed a trace of albumen, was acid in reaction with a specific gravity of 1.023. There were no formed elements. V.D.R.L. was nonreactive. The NPN was 35 mg. per cent and total serum protein was 7.30 gm. per cent (albumen 4.38 gm. per cent, serum globulin 2.92 gm. per cent). Serum bilirubin, alkaline phosphatase, bromsulphalein, and cephalin flocculation tests were normal. Serum sodium was 144 meq/L, potassium 3.8 meq/L, chlorides 114 meq/L, and CO_2 was 29 meq/L. Studies of the sputum for pathogenic organisms including acid fast bacilli were consistently negative. PPD tuberculin was negative. Stool specimens were guaiac negative. LE preparation was negative. X-ray film of the chest showed a faint reticular pattern interpreted as minimal pulmonary fibrosis but no nodulation was present (Figure 3a). The increase in the transverse diameter of the heart was still present and the anteromedial bulge of the diaphragm on the right had become more prominent and sharply outlined and was thought possibly to represent an increase in size of the liver. Upper G.I. series, barium enema, gall bladder series, and intravenous pyelograms were within normal limits. The three second vital capacity was 2.5 liters and the maximum breathing capacity was 87 liters per minute, but it was noted that the patient appeared somewhat depressed and did not seem to cooperate as well as he had previously. A skin and muscle biopsy was performed and sections of skin, fat and muscle were normal with no evidence of inflammation, arteritis, or granulomatous formation. Electrocardiogram showed some flattening of the T waves but was otherwise unremarkable.

During the period of observation it became obvious that the patient was depressed and was expressing paranoid ideas as well as multiple bizarre complaints referable to all parts of his body. It was thought that the multiple symptomatology and mental change might be related to the steroid therapy and for this reason one more attempt was made to discontinue it. Prednisone therapy was gradually reduced and intermittent injections of ACTH GEL were given. Steroid therapy was finally discontinued on June 10, 1957. Serial chest x-rays showed no significant change. With discontinuance of the steroid therapy there was a definite improvement in the symptomatology of multiple pains and depression. He was discharged from the hospital on June 18, 1957 with advice to continue his digitalis.

The patient was seen in the Clinic on July 1, 1957 after having been without steroid therapy for approximately three weeks. He was encouraged, felt much stronger and noted that the multiple aches and pains had disappeared. His family, for the first time, noted that he was gaining in strength and feeling quite well. The lungs were clear to percussion and auscultation. X-ray film of the chest revealed no significant change.

When seen in August 1957, November 1957 (Figure 3b), and February 1958 he was feeling quite well. His gastrointestinal symptoms, multiple aches and pains, and substernal pain on exercise had subsided. He did note slight shortness of breath after moderate exertion. It was felt that his clinical condition was satisfactory and it is to be noted that he had been without steroid therapy for approximately nine months when last seen.

DISCUSSION

A case of pulmonary disease has been reported which was apparently caused by repeated exposure to silage gases over a period of two months. It is of interest that the gas-producing agent in this instance was hay silage, whereas in all previous reports corn silage gases were the offending agents. It was not possible to perform analysis of the silo gas involved in this case but its description by the patient as a brown acrid haze which layered over the top of the silage and produced choking when inhaled is in agreement with other reports in which the gas was identified as nitrogen dioxide. In addition, it is known that prolonged hot dry weather such as prevailed in Connecticut during the summer of 1956 favors the production of this gas.

The use of sodium metabisulfite as a preservative does not appear to have been a factor. This substance might be expected to produce hydrogen sulfide or the gaseous sulphur oxides, but these gases are either colorless or white rather than brown.

This case is unique in that it followed neither an acute fatal course nor a subacute saddle-bac course such as has been described in all previou reports. It is suggested that the course of the illness in this instance represents the development o a progressive pulmonary granulomatous proces which was eventually halted and reversed by prednisone, leaving a faint fibrotic residual as seen o the x-ray film. These findings lend support to th suggestion of Delaney[1] and others that repeate exposure to toxic silage gases might be a factor i the syndrome known as pulmonary interstitial fibrosis as seen in farmers.

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ARTHRITIS MUTILANS

Report of An Unusually Extensive Case

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SUMMARY

The case reported here is by history an physical examination one of a progressiv rheumatoid arthritis. There have been no complicating or atypical features, except for sever deformities involving symmetrically the hand and wrists, elbows, shoulders, hips and knees

Arthritis mutilans is an extremely deforming type of arthritis which has been reported under various names. These include the terms chronic absorptive arthritis, "opera-glass hand," "la main et doigt en lorgnette," arthritis absorbans and many others.[1,4,8,12,13] The variety of synonyms has made it difficult to establish the number of published cases, but it is apparent that this is a relatively rare condition. Marie and Leri[11] first described this entity under one of the foregoing names, "la main en lorgnette." Their patient was a 66 year old woman who had had extensive polyarthritis for 28 years, and who showed a peculiar shortening of the fingers. The fingers were loose and could be easily pulled out to their original length, thus resembling a lorgnette. An earlier

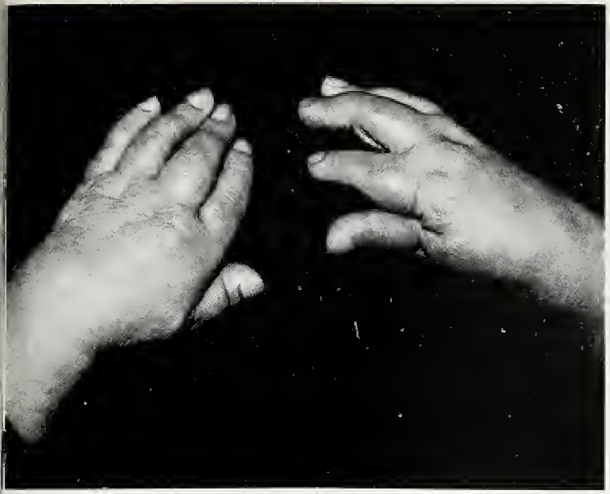

Figure 1

Note shortening of fingers, subluxation of thumbs and metacarpophalangeal joints.

reference to probably the same disease was made by Brumpt[4] in a paper published in 1906 under the title of "Doigts en Lorgnette." This was a case of a 35 year old Sudanese man who at the age of fifteen had some skin disease associated with fever and painful joints. After several months this progressed so that the patient could not move. Initially, there was stiffness of the joints, but after several years there occurred a progressive resorption of some of the fingers to a final state in which the deformity very closely matched the current description of arthritis mutilans. That article includes a line drawing of the hands of the patient which is rather typical for the entity being discussed.

The case herein presented appears to us to be most unusual because of the extensive bone absorption involving multiple joints. Most previous available studies limit the involvement to the hands and/or feet. Roentgen examination of the major joints of our patient reveals that there was extensive resorptive abnormality involving the shoulders, elbows, wrists, and fingers, as well as the hips, knees, and to a lesser degree the ankles.

CASE HISTORY:

M. L., a 67 year old, white, married, Jewish female states she was enjoying perfect health until the latter part of 1935 when she gradually noted the onset of pain in her toes and feet. Her knees then became painful, swollen, and stiff. Beginning in 1936 she remained in bed for a three year period. By 1937 she noted gradual onset of deformities in her hands. In 1939 she began to note pain in her hips. She was, however, able to walk independently with crutches until 1950. Her knees became so deformed and painful that she was unable to do any ambulation other than getting to and from a chair. The patient denies any episodes suggestive of acute exacerbation or remission of her arthritis and there have been no skin manifestations.

At the present time the patient states that she has pain in all her joints usually following physical activity. She complains of occasional aches in her temporomandibular joints. She has noted increasing deformity of the right elbow beginning approximately three years ago. There is no history of back pain or stiffness. There has been no specific treatment, other than 10 to 30 grains of A.S.A. daily and occasionally codeine sulphate gr. 1/4.

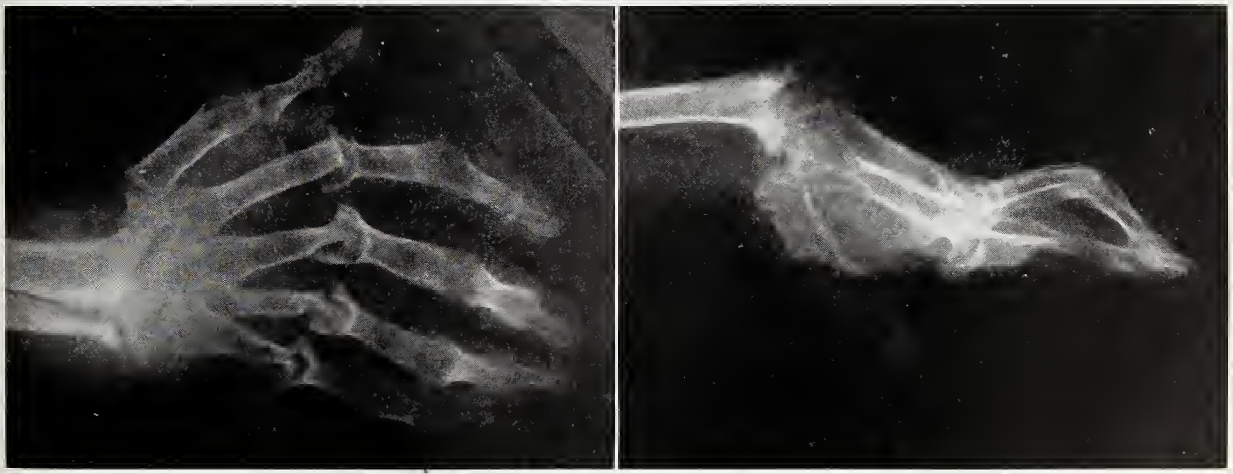

Figure 2

Extensive absorption of metacarpal heads with telescoping into base of proximal phalanges. Dissolution of carpal bones and absorption of distal radius and ulna. Other hand and wrist identically involved.

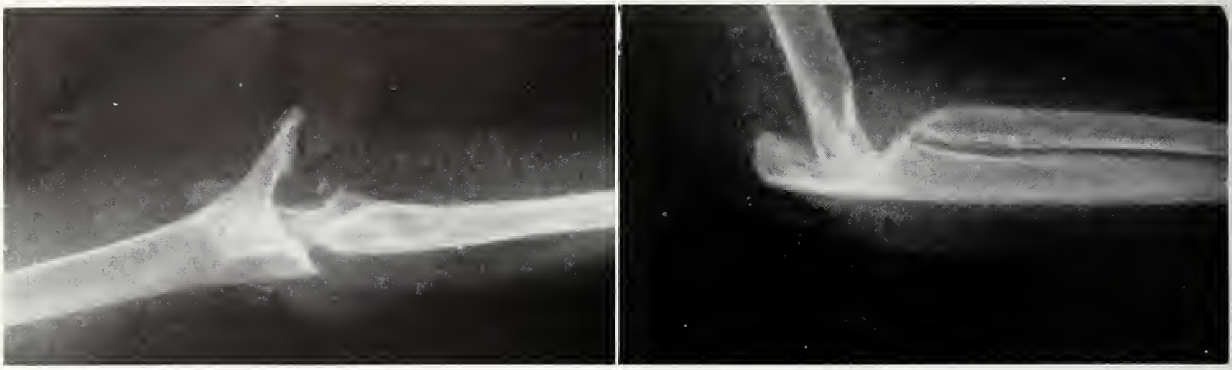

Figure 3

Note severe absorption and subluxation. Other elbow similarly involved.

Her general health since the onset of her arthritis has been good with the exception of having gall bladder disease between 1949 and 1954.

PHYSICAL EXAMINATION:

Neck: Motion of the neck was limited to 20° flexion, with no extension beyond the neutral position. Lateral rotation was greatly restricted.

Shoulders: There was no undue tenderness present. There was considerable crepitation bilaterally with moderate loss of motion in all directions, more pronounced on the left.

Elbows: There was subluxation of the right ulna on the humerus with a 10° flexion contracture. There was full flexion, pronation and supination. Her left elbow revealed similar findings.

Wrists and Hands: Wrist motion was limited to a restricted arc of palmar flexion. There was subluxation of the right first carpometacarpal joint with ankylosis of the right first proximal interphalangeal joint. The right second, third and fifth proximal interphalangeal joints were ankylosed with restriction of motion of the distal interphalangeal joints of these fingers. The right metacarpophalangeal joints showed evidence of synovial thickening with hypermobility and telescoping. The left first metacarpophalangeal joint and proximal interphalangeal joint had a normal range of motion. There was subluxation of all remaining left metacarpo-

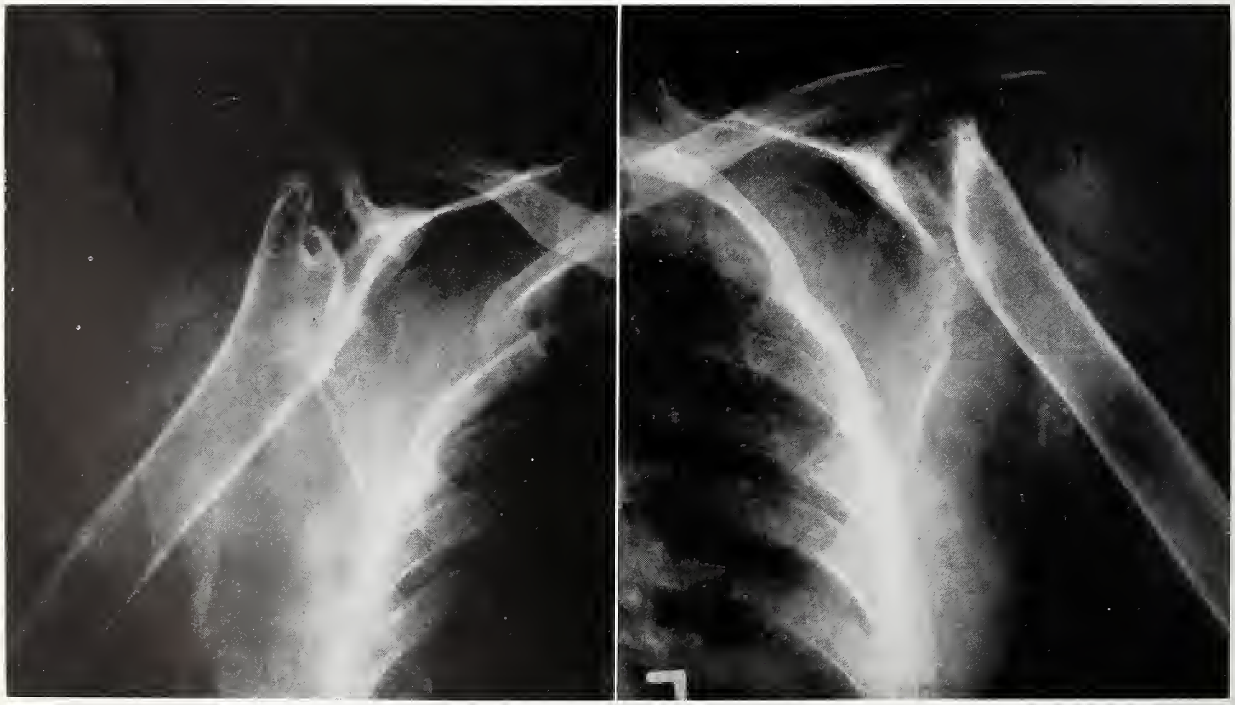

Figure 4

Complete loss of humeral head with subluxation.

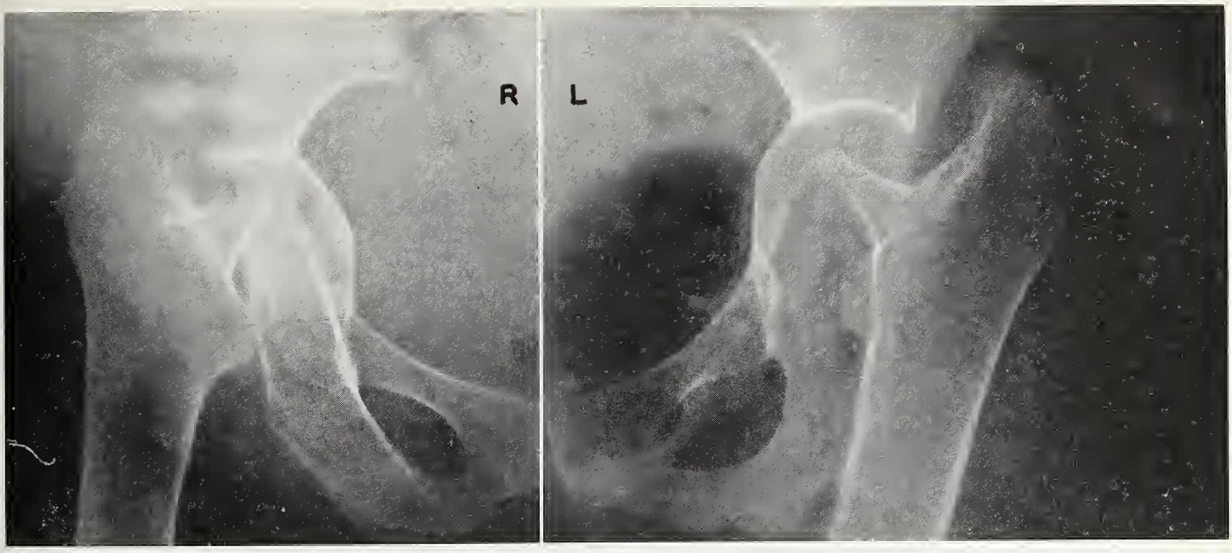

Figure 5
Complete loss of femoral head and severe absorption of the neck. Intrapelvic protrusion of the acetabulum.

phalangeal joints and ankylosis of all the proximal interphalangeal joints (Fig. 1).

Hips: Both hips revealed a moderate range of motion with the exception of 10° flexion contracture.

Knees: Her knees revealed moderate synovial thickening. There was no tenderness or effusion present. Flexion was limited to 80° and extension to 160°. There was a 15° genu varum deformity on the right and 35° genu valgum deformity on the left.

Ankles and Feet: There was full range of plantar and dorsiflexion with complete loss of eversion and inversion. There was no tenderness of her metatarsophalangeal joints.

The patient would not allow blood to be drawn for laboratory studies.

ROENTGENOGRAPHIC FINDINGS:

Films were obtained of the shoulders, elbows, wrists, hands, hips, knees, and ankles; all of these exhibit considerable abnormality. The x-ray changes were particularly interesting because of the prominent bone absorption, multiple subluxations and large number of joints involved. Fibrous and bony ankylosis were infrequent. Likewise bony demineralization and soft tissue atrophy were not particularly prominent. The changes in the involved joints were bilaterally symmetrical.

Films of the hands and wrists (Fig. 2) reveal the characteristic findings of arthritis mutilans resulting in the typical "opera glass hand" deformity. The metacarpal heads exhibit partial absorption and in addition they have eroded into the bases of the corresponding proximal phalanges. There has also been some absorption of the distal end of each radius and ulna. The proximal interphalangeal joints exhibit bony fusion as do some of the distal interphalangeal joints. The carpal bones have been almost completely absorbed. There is palmar subluxation at the wrist.

Films of each elbow (Fig. 3) reveal extensive absorption of the distal end of the humerus, the proximal ulna and the radial head. Subluxation is a prominent feature.

Films of both shoulder girdles (Fig. 4) reveal complete absorption of the humeral heads and portions of each neck. There is some absorptive change about the glenoid. Subluxation is present.

Films of both hips (Fig. 5) reveal complete absorption of the femoral heads associated with much absorption and pointing of the femoral necks. There is intrapelvic protrusion of each acetabulum. Subluxation is present.

Films of both knees (Fig. 6) reveal pronounced narrowing of the cartilaginous joint spaces associated with subluxation and prominent absorptive changes involving the opposing surfaces of each tibia and femur.

Films of the ankles (Fig. 7) do not reveal significant absorptive change or subluxation. There is prominent demineralization associated with narrowing of the joint spaces and fusion of many of the tarsal bones. The configuration here is that of an advanced rheumatoid arthritis, but not of the "mutilans" type.

DISCUSSION

There has been much uncertainty in the literature as to the exact nature of this disease process. Because of the extensive destruction of bone, the differential diagnosis includes leprosy, the neuropathies, sarcoidosis, psoriatic arthritis, ochronosis, scleroderma, thromboangiitis obliterans and hematoporphyrinuria.[3,9] Certainly arthritis mutilans resembles rhumatoid arthritis, but many of the cases reported lack the characteristic clinical features of rheumatoid arthritis. Rogers and Lansbury[14] believe that this entity is distinct from either rheumatoid arthritis or osteoarthritis.

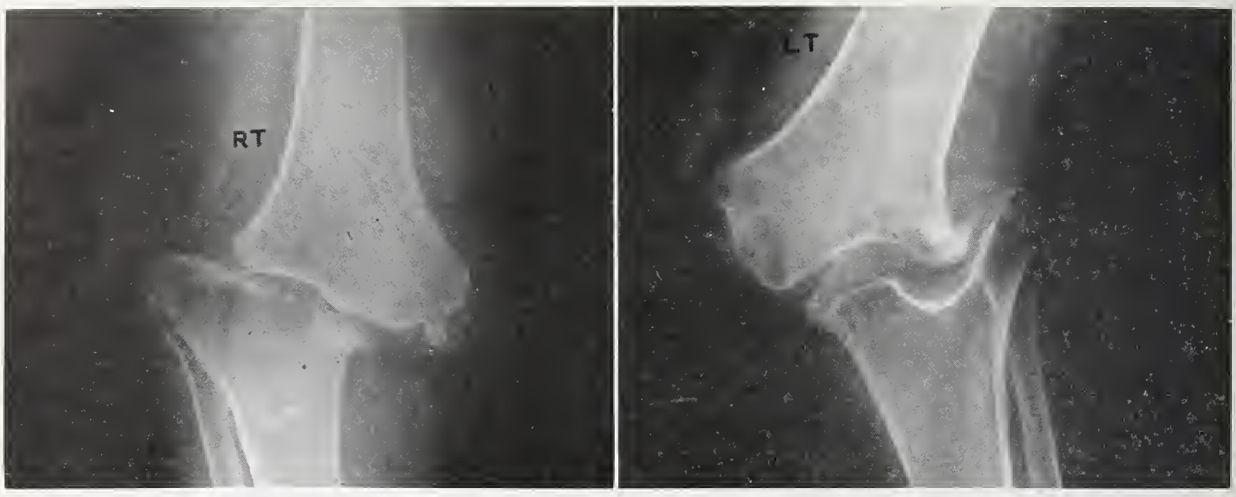

Figure 6
Loss of bone substance with genu varum on right (a) and genu valgum on left (b).

Cases of psoriatic arthritis at times show considerable destructive joint changes with bone absorption, especially of the phalanges of the hands and feet.[1,2,5,15,18] Copeman[7] states that arthritis mutilans is commoner in arthritic conditions associated with psoriasis, although in most of the cases the joint lesion is typical of rheumatoid arthritis. Graham[10] considers that the association of psoriasis and rheumatoid arthritis is significant and not mere coincidence, although in psoriatic arthritis there is much greater likelihood of terminal interphalangeal disease than in rheumatoid arthritis alone.

Solomon and Stecher[17] presented eight cases of chronic absorptive arthritis; five were women and three men. The age of onset ranged from fifteen to thirty-five years with an average of 24.6 years. The severe absorptive changes began as early as three years after the onset of clinical arthritis. Only two patients showed changes of the fingernails and skin suggestive of psoriasis. Nielsen and Snorrason[13] found in ten cases that all lesions were localized to the metacarpophalangeal and proximal interphalangeal joint areas. Major destruction was never shown in distal interphalangeal joints. Their patients were mostly female and no skin lesions were described.

Eisenstadt and Eggers[8] report a case which suggests that arthritis mutilans is not necessarily a manifestation of advanced or fulminating rheumatoid arthritis. Their patient is a seventeen year old male who was observed almost from the beginning of his disease and in whom, over a four year period, bilateral "opera-glass foot" gradually developed without any other joint manifestations. They have biopsy material available which suggests the mechanism of the unusual bone destruction. The process initially is entirely limited to the joint and the subchondral bone. Later, a periosteal bone reaction occurs, demonstrable as periosteal new bone formation. The latter can be very pronounced and

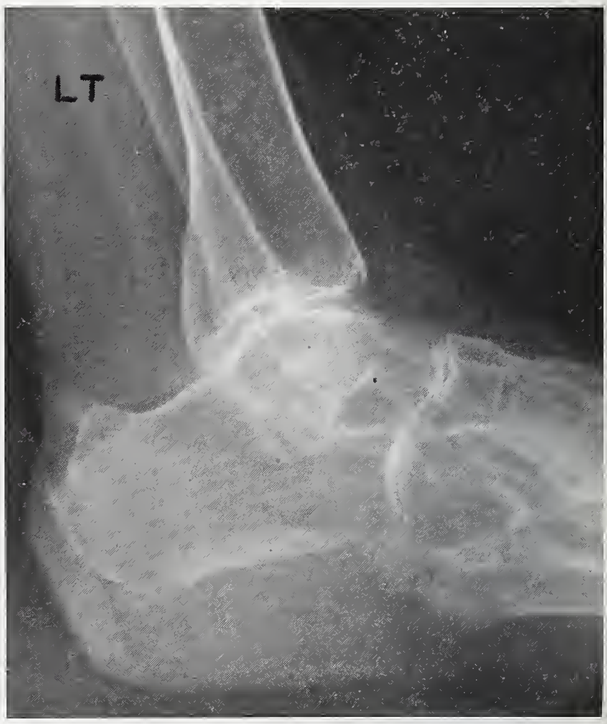

Figure 7
Note lack of bone absorption. This was only site where ankylosis was predominant.

may have an onion-peel appearance. It involves either the whole shaft or only that part adjacent to the joint. Finally, this new bone formation is followed by an abnormal periosteal bone absorption which causes not only a disappearance of the newly formed bone, but also the original cortex and leads to the formation of a tapering end. The latter seems to contribute to the saucerlike excavation of the base of the neighboring phalanx. Cohen[6] had also suggested that an unusual periosteal absorption might be responsible for the bone mutilation. Sterne and Schneider[18] showed this periosteal reaction on the roentgenograms of three of their early cases of so-called "psoriatic arthritis." Two of Smyth's cases with long term observation have shown that deformities are preceded by severe and progressive osteoporosis in the bone adjacent to the joint.[16] It is well known clinically that as rheumatoid arthritis advances, the pain on passive manipulation gradually diminishes and finally practically disappears. Smyth believes that the loss of sensitivity to pain renders these joints subject to trauma and it is probable that trauma represents an important accessory factor in the production of subluxation and the deformities which result in hypermobility.

Of the cases reviewed, it is difficult to conclude that arthritis mutilans and rheumatoid arthritis are two distinct disease entities. The main clinical difference is the severity of joint involvement. It is well known that rheumatoid arthritis can have great variability in clinical severity and in roentgenologic changes, regardless of the duration of the disease.

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Special Article

REVIEW OF APPLICATIONS FOR STATE AID TO THE BLIND 1938-1958

EUGENE M. BLAKE, M.D., *New Haven*

The Author. *Medical Director, Connecticut Chapter, National Society for the Prevention of Blindness*

In July of 1935 the Connecticut State Legislature passed the Old Age Assistance law and two years later Section 617e was added to afford financial aid to the blind. The Section reads as follows: "Aid to the Blind. (a) The provisions of this chapter (the law relating to Old Aid Assistance) were extended and made applicable to needy blind individuals regardless of age, who in other respects comply with the provisions thereof".

The accepted definition of blindness was adopted: that is, total and permanent loss of sight in both eyes, or the reduction to one tenth (20/200) or less in the better eye with glasses, or the reduction of the field of vision of the better eye inside the 20 degree circle. The program was put into operation in January, 1938, and the writer became Consultant to the blind program and has continued in that capacity to the present, April, 1958. The visual state of all applicants for financial aid is passed upon by the Consultant. The examinations of the eyes are made by the ophthalmologists or optometrists and referred to the Consultant for evaluation.

The number of records examined for the twenty year period was 1,470. The number who applied but were found to have vision better than 20/200 was 194. There were some duplicates which lowered the figures somewhat.

Statisticians are not in entire agreement as how to classify individuals who are blind in both eyes but from a different cause in each eye. For example, if an individual suffered an injury to one eye resulting in total loss of sight and later developed a cataract in the second eye, the cataract would obviously be considered the cause of blindness. If there had been no injury to the first eye and a cataract developed in the second eye, the applicant would not be considered blind, and not eligible to state aid, but having been blinded in one eye, the second eye would be considered the cause of blindness. The consensus is that the cause of blindness in the second eye should be given in the classification of blindness.*

It is recommended that only the cause affecting the second eye to become blind be included in the main tabulation. This procedure throws the emphasis on the economic cause of blindness. From the standpoint of the study of blindness *per se* from other than economic reasons, the loss of the vision in the first eye affected may become of almost greater significance, since if there were no loss in one eye, the individual does not rank as blind. Also, the classification of the cause of blindness overlooks the cause in the first eye affected. For instance, if an individual developed a malignant tumor in one eye requiring removal of the organ and later developed a cataract in the remaining eye, the loss of the first eye is of much greater significance since even death might result from metastasis. Since the aim of classification is to state the causes of blindness, it seems very desirable to record the double etiology in such cases. In the present analysis, however, we have followed the approved method of considering the loss of the second eye as the cause of blindness.

The Classification is given below according to the structure affected rather than by the etiological factor.

AGE	NO.
Birth	32
1 to 9	25
10-19	18
20-29	61
30-39	102
40-49	178
50-59	293

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* (The Manual on the Use of the Standard Classification of the Causes of Blindness. C. Edith Kerby).

60-69	338
70-79	98
80-89	66
90 Plus	16

DISEASES OF IRIS AND CILIARY BODY	NO.
Sympathetic Ophthalmitis	29
Uveitis	27
Plastic Iritis	8
Tuberculous Iritis	1
Luetic Iritis	1
Anaridia	3

DISEASES OF THE CHOROID	NO.
Chorio Retinitis	31
Chorioditis, cause unknown	6
Disseminated Chorioditis	4
Coloboma	2
Melanoma	1
Sarcoma	1
Atrophy	2

DISEASES OF THE OPTIC NERVE	NO.
Atrophy due to Lues	36
Atrophy due to Brain Tumors	32
Atrophy (cause undetermined)	52
Atrophy, Post Meningitis	10
Toxic Amblyopia	7
Multiple Sclerosis	3
Cerebral Hemorrhage	3
Trauma	6
Congenital Defects	6
Friedreich's Ataxia	1
Hydrocephalis	1
Diabetes	2
Congenital Aplasia	5
Coloboma	1
Secondary (cause unknown)	15

DISEASES OF THE CORNEA	NO.
Opacities	241
Interstitial keratitis	26
Chemical burns	7
T.B. Keratitis	2
Luetic Keratitis	1
Bullous Keratitis	2
Sclerosing Keratitis	2
Ulcerous Keratitis	4
Staphyloma	2
Keratoconus	2
Ophthalmia Neonatorum	9

CRYSTALLINE LENS	NO.
Congenital Cataract	28
Senile Cataract	183
Traumatic Cataract	5
Juvenile Cataract	1
Membraneous Cataract	1
Lightning Cataract	1
Luxation of Lens	5
Complicated Cataract	1

DISEASES OF THE RETINA	NO.
Diabetic Retinitis	99
Detachment	48
Retinitis Pigmentosa	46
Myopic Changes	38
Vascular Degeneration	12
Discoid Degeneration	1
Retrolental Fibroplasia	8
Albuminuric Retinitis	6
Retinitis Proliferans	5
Hemorrhagic Retinitis	8
Albinism	7
Glioma	1
Tumor (type unknown)	1

GLAUCOMA	NO.
Chronic Simple	183
Acute Congestive	7
Congenital	4
Malignant	2
Hemorrhagic	1
Secondary	1

NEUROLOGICAL	NO.
Hysterical Amblyopia	2
Leber's Disease	4
Multiple Sclerosis	2
Cerebro-Macular Degeneration	1
Nystagmus	1
Congenital Aplasia	1
Amblyopia ex Anopsia	1

EYEBALL	NO.
Anophthalmos	2
Panophthalmitis	1
Intraocular Foreign Body	1
Penetrating Wound	1
Phthisis Bulbi	27
Microphthalmos	15

CLASSIFIED BY COLOR

White	1,113
Black	109
Asiatic	1

CLASSIFIED BY SEX

Males	565
Females	711

COMMENTS

An analysis of the application records shows that the age incidence was lowest in the ten to nineteen group and highest in the sixty to sixty-nine group, being closely seconded by the fifty to fifty-nine years. The highest visual mortality, therefore, is between the ages of fifty to seventy, the period of greatest danger to vision.

Female applicants were slightly in excess of males, which appears to be somewhat different from what one would expect. White applicants outnumber the black, ten to one.

Among disabling or blinding changes in the cornea, interstitial keratitis was the commonest affliction, demonstrating anew that the spirochete is still with us. Diseases of the iris and ciliary body show almost equal incidence for sympathetic ophthalmitis and uveitis, while chorioretinitis leads in diseases of the choroidal membrane.

Senile cataract far exceeds other lesions of the crystalline lens, frequently recording failure after operation for its removal. Further evidence that surgery has not been invoked sufficiently early to prevent sympathetic disease is the finding of twenty-nine cases of this hopeless condition. Of diseases of the retina, diabetic retinitis is our greatest enemy, being responsible for one third of all retinal lesions and demonstrating the well known inability of treatment to prevent involvement of the retinal tissue.

Atrophy of the optic nerve accounts for most of the diseases of that structure, the leading cause being syphillis, followed closely by tumors of the brain, with many instances in which the etiological factors are unknown. Glaucoma is one of the high ranking causes of blindness, with the so-called chronic simple type being the leading offender. The acute congestive and the congenital type compose a small group.

All the above facts point to the great need for more and more emphasis on preventive medicine and the early recognition of the disease when present, and to the fact that the eye is not an isolated and independent organ but part of the whole, suffering when that suffers.

CONNECTICUT STATE MEDICAL JOURNAL

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EDITORIALS

Reader's Interests

Perusing old volumes of the Journal we came upon the report of a questionnaire addressed to the subscribers in 1947. While much has happened in the intervening years we believe it is reasonable to assume that the ideas which the members of the State Society expressed at that time regarding what they expected of the Journal, basically have not changed.

One-third of those circularized returned the questionnaire and ninety-one per cent recorded that they read the Journal. More than half desired more material from our own members as well as papers from physicians of national reputation. The committee which reviewed the many suggestions at that time concluded that "the presentation of clinical articles has been and should be the primary objective of the editorial board."

In addition, it seems clear that proceedings of the House of Delegates and meetings of the Council should be reported in detail, as well as miscellaneous matters of general interest throughout the State and in the various Counties. The board intends to continue these general policies and would welcome from our readers suggestions for the improvement of this publication. All manuscripts submitted will be given careful consideration.

Smoking and Coronary Artery Disease

Statistical evidence has suggested a relationship between smoking and coronary artery disease, but such a correlation does not necessarily indicate a casual relationship. Recent evidence suggests that smoking may be a sign of a personality characteristic which itself may influence the development of coronary artery disease. Heath[1] observed differences in personality and mode of living between smokers and non-smokers. Russek and Zohman[2] found that 91 per cent of young patients with coronary artery disease were working under severe emotional strain as compared with only 20 per cent of the normal controls. They suggested that the increased consumption of tobacco in the "coronary" group may be a result of heightened emotional tension rather than a causative factor in heart disease.

These observations should not obscure the fact that smoking does have pharmacological actions which may aggravate coronary artery disease and perhaps harm even normal hearts. There are many who believe that it is not nicotine but some unknown substance or substances in the smoke that may be the offending agent. Nevertheless one cigarette (or the administration of an equivalent amount of nicotine) often increases heart rate and blood pressure, flattens the T wave of the electrocardiogram and produces an abnormal ballistocardiogram especially in people over 50 years of age, Roth and Schick.[3] The only point of contention is whether these effects are due to peripheral arteriolar constriction, coronary artery constriction, or a result of increased cardiac work. Whatever the mechanism, the inference is clear: smoking can produce an hypoxic myocardium especially in patients with coronary artery disease and those in the upper age groups.

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(Continued on Page 564)

The
Achievements
of
Arist

...in Skin Diseases: In a study of 26 patients with severe dermatoses, ARISTOCORT was proved to have potent anti-inflammatory and antipruritic properties, even at a dosage only ⅔ that of prednisone[1]... Striking affinity for skin and tremendous potency in controlling skin disease, including 50 cases of psoriasis, of which over 60% were reported as *markedly improved*[2]...absence of serious side effects specifically noted.[1,2,3]

...in Rheumatoid Arthritis: Impressive therapeutic effect in most cases of a group of 89 patients[4]...6 mg. of ARISTOCORT corresponded in effect to 10 mg. of prednisone daily (in addition, gastric ulcer which developed during prednisone therapy in 2 cases disappeared during ARISTOCORT therapy).[5]

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...in Respiratory Allergies: "Good to excellent" results in 29 of 30 patients with chronic intractable bronchial asthma at an average daily dosage of only 7 mg.[6] ... Average dosage of 6 mg. daily to control asthma and 2 to 6 mg. to control allergic rhinitis in a group of 42 patients, with an actual reduction of blood pressure in 12 of these.[7]

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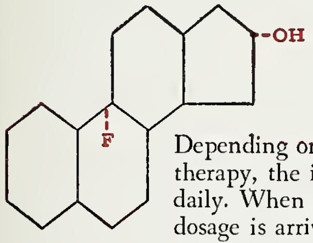

Depending on the acuteness and severity of the disease under therapy, the initial dosage of ARISTOCORT is usually from 8 to 20 mg. daily. When acute manifestations have subsided, maintenance dosage is arrived at gradually, usually by reducing the total daily dosage 2 mg. every 3 days until the smallest dosage has been reached which will suppress symptoms.

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EDITORIALS

(Continued from Page 561)

Concerning Myocardial Infarction

Paton's report (Amer. J. Med., 1957, 23:761) that no more than 60 per cent of the cases of myocardial infarction were correctly diagnosed should dispel any existing complacency about the ease of making such a diagnosis. Without an electrocardiogram, accuracy is reduced to only 44 per cent. In 30 per cent of the patients showing myocardial infarction at necropsy, other diagnoses such as pulmonary embolism, pneumonia, dissecting aneurysm, and coronary sclerosis had been made. "Silent infarcts"—often occurring post-operatively and characterized by breathlessness without pain—most frequently eluded clinical diagnoses. It of course cannot be forgotten that the opposite is also true namely that myocardial infarction has been diagnosed when the correct diagnosis was some such disease as pulmonary embolism, pneumonia or dissecting aneurysm.

LETTERS TO THE EDITOR

June 9, 1958

Connecticut State Medical Journal,
160 St. Ronan Street,
New Haven, Conn.

Gentlemen:

The following resolution was voted on and passed at the May 1st meeting of the Eye, Ear, Nose, and Throat Section of the Connecticut State Medical Society.

The Eye, Ear, Nose, and Throat Section approves taking of tonometry readings as a screening test for glaucoma when they are conducted according to the following stipulations:

1) The organization of such local mass screening tests for glaucoma must be under the direction of the local or state branch of the National Society for the Prevention of Blindness who will assume responsibility for carrying out the remainder of the stipulations.
2) The publicity, the location of the screening tests, the techniques for sterilization, and the personnel doing the professional work must all be approved by the local ophthalmologists and by the local chapter of the N.S.P.B.
3) It is specifically stipulated that optometrists will not participate in this medical procedure.
4) The cooperation and participation of volunteer organizations and service clubs is approved as long as the above stipulations are observed.

Sincerely,

John P. Simses, M.D.
Secretary-Treasurer

SPECIAL NOTICES

PSYCHIATRIC SEMINAR

The Twelfth Connecticut Postgraduate Seminar in Psychiatry and Neurology will begin its courses of lectures on September 18, 1958 and continue through April 15, 1959.

From September 22 through December 1, (Monday and Wednesday) from 3:30 to 9:00 P.M., at the Yale University School of Medicine, Brady Auditorium, 333 Cedar Street, New Haven, Connectiut, courses will be held in clinical neurology neuroroentgenology, electroencephalography, neuroanatomy neurophysiology, and neuropathology.

On December 1 and December 8, (Monday) from 4:00 to 9:00 P.M. at Yale University School of Medicine, there will be six sessions in pediatric neurology.

From January 6 through March 16, (Monday) from 2:00 to 6:00 P.M., at the Connecticut State Hospital, Battell Hall Auditorium, Middletown, there will be sessions in general psychiatry (psychopathology, psychiatric syndrome, therapy psychosomatic medicine, geriatric psychiatry, and psychiatry and law).

From February 11 through March 18, (Wednesday) from 6:30 to 9:45 P.M., also at Yale University School of Medicine there will be sessions in child psychiatry.

There will be four special seminar projects from 10:00 to 4:00 P.M. The subjects and details concerning the seminars are listed in the program—which we will forward you as soon as they arrive from the printer.

There is no fee for the above courses.

Copies of the program may be obtained from the Office of the Assistant Dean of Postgraduate Medical Education, Yale University School of Medicine, 333 Cedar Street, New Haven Connecticut.

Carcinoma of the Cervix

"I would like to show you the ten year results of surgery and I think they are good. We will give you the actual figures as of this moment. In Stage—I, 70 per cent are living 10 years; in Stage—II, 5 per cent are living 10 years. I think this shows that surgery is a satisfactory method of treatment of this disease. I have no argument with anybody who wants to use radiation first, or anybody who wants to use radiation primarily. I personally believe that patients whom we can apparently demonstrate are going to be radiation-sensitive should be treated by radiation and x-ray treatment, and those whom we believe are radiation resistant should be operated upon." Dr. Joe Vincent Meigs, from *Annals of Surgery,* May, 1958.

William B. Terhune, M.D.

William B. Terhune, M.D., of New Canaan, was elected Vice-President of the American Psychiatric Association at their Annual Meeting in San Francisco in May, 1958. Dr. Terhune is founder and Medical Director of The Silver Hill Foundation in New Canaan, Connecticut. He was founder and first Medical Director of the Connecticut Society for Mental Hygiene and is Associate Professor of Psychiatry at Yale. He has been in former years on the Council and Executive Committee of A.P.A. and is now serving as Chairman of The Sub-Committee on Education and Training of the Committee for Accreditation of Mental Hospital Administrators.

Middlesex County

Franz Hasselbacher has received a master's degree in psychiatric administration from Columbia University.

Donn Barton has been elected president of the Middlesex chapter of the American Heart Association.

Philip Berwick has been appointed health director of the Town of Haddam.

The new pathologist at the Connecticut State Hospital is Michael D. Davis, M.D. He was formerly on the staff of the Rocky Hill Veterans Home and Hospital.

Connecticut Contributions to Medical Schools on Increase

Connecticut physicians contributed more than $91,000 to their medical schools during 1957 through the American Medical Education Foundation and alumni fund campaigns, according to a report recently prepared by the Foundation.

The amount surpassed the 1956 record total of $57,067 by more than $30,000 and gave Connecticut ninth place among the states in total contributions and eleventh place in the number of contributors.

The funds raised by county AMEF committees totalled $15,362 from 622 contributors, while alumni funds reported a total of $76,022 from 1370 contributors. Included in the total fund was a contribution of $2,021 from the seven county chapters of the Woman's Auxiliary to the State Medical Society.

The eight states which led Connecticut in total contributions were California – $652,883; New York–$454,436; Illinois–$371,647; Pennsylvania–$293,833; Massachusetts–$205,101; Arkansas–$185,499; Ohio–$165,708; and New Jersey–$115,848.

Emergency Call Plan Reports 3,688 Calls Received in 1957

Thirteen of the eighteen emergency call plans sponsored by county and local medical associations have reported that a total of 3,688 calls for emergency care were received during 1957.

In addition to the emergency calls more than 1,064 calls for information were reported. Approximately 497 physicians were enrolled on 14 of the emergency panels to answer the calls and it was reported that callers who reported they did not have a family physician ranged from 2 to 10 per cent for some plans, to as high as 93 per cent.

The number of emergency calls for the various plans were reported as follows: Bridgeport Medical Association–693, Bristol Medical Society–50, Danbury Medical Society–450, Hartford County Medical Association (Greater Hartford Plan) –1,250, Hartford County Medical Association (Manchester Plan) –150, New Britain Medical Society–250, New Haven Medical Association–246, Norwich City Medical Society–475, Waterbury Medical Society–30, Windham County Medical Society (Willimantic Plan)–10, Middlesex County Medical Association (Middletown and Saybrook Plans)–69, Stamford–15.

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COUNCIL MEETING

Wednesday, May 21, 1958—3:30 p.m.

A regular monthly meeting of the Council was called to order by the Chairman, Dr. Feeney, at 3:30 p.m. on Wednesday, May 21, 1958. Present in addition to Dr. Feeney were Doctors Russell, Weise, Polito, Richards, Monahan, Carter, Gallivan, Weld, Scully, Davis, Gens, Clarke, Kennedy, Buckley, Blodinger, Archambault, Schiavetti, Ottenheimer, Eddy, Seigle, Grendon, Gardner, Rentsch, Starr, Hughes and Gilman.

A COMMITTEE ON AGING

Dr. Gens, Chairman of the special committee appointed by the Council at its meeting on April 16th to explore the desirability of the Society establishing a Committee on Aging as proposed by the American Medical Association, recommended, and the Council approved, that the Society have such a committee and the following were appointed: John P. Bachman, Medical Director, Department of Welfare, Hartford; John Donnelly, psychiatrist, Society's Committee on Mental Health, Hartford; Israel H. Friedberg, general practitioner, Newington; George H. Gildersleeve, representative from Society's Committee on Hospitals, Norwich; and James R. Miller, Vice-Chairman of State Commission on Tuberculosis and Other Chronic Illness, West Hartford. Dr. Miller was requested to serve as chairman.

PRESENT STATUS AND RETIREMENT OF FORMER EXECUTIVE SECRETARY

After full discussion of this subject the following actions were taken:—(A) VOTED that the Chairman of the Council appoint a committee of five members of the Council to make recommendations at the June Council meeting regarding the employment of an Assistant to the Executive Secretary.

This motion was amended and it was voted tha the Council employ Dr. Barker as Assistant to the Executive Secretary at the same salary he receive as Executive Secretary until other plans are mad and that the date of employment of Dr. Barke be made retroactive to April 29, 1958.

The following members of the Council were appointed to this committee: — Maxon H. Eddy Bridgeport, Chairman, Israel E. Blodinger, Ne Haven, Harold M. Clarke, New Britain, Willar E. Buckley, Middletown and Michael R. Scully Bridgeport.

(B) It was moved and VOTED that the committee named above consider plans for the retirement of Dr. Barker and present its recommendations if possible at the June Council meeting.

(C) It was moved and VOTED that the Executive Secretary be empowered to bring the Assistan to the Executive Secretary to the Council meeting to take notes.

Other motions relating to this subject were discussed and tabled without action.

STATUS OF NEWLY ELECTED EXECUTIVE SECRETARY

A letter from Dr. Richards was read directin attention of the Council to the problems encountered in fulfilling the duties of the Executive Secretary as previously discharged by a full-time incumbent. Since this general matter had been acte upon (preceding paragraph), this subject was tabled without action.

It was voted that all members of the Counci be mailed a complete listing of officers and electe committees of the Society.

RENEWAL OF MEDICARE CONTRACT

Dr. Clarke, Chairman, reported for the MEDICARE Committee and the renegotiations of th Society's Contract with the Office of Dependent

Medical Care as were carried out by Dr. Clarke, Dr. Miller and Dr. Barker with the Department of Defense on May 8th and 9th. The Committee recommended the approval of the renegotiated fee schedule and after general discussion of the schedule it was voted to accept the recommendation of he MEDICARE Committee and that the Council accepts the fee schedule for the Society. It was further voted that the President of the Society, Dr. Russell, sign the new negotiated contract for the Connecticut State Medical Society.

THOMAS PATRICK MURDOCK SCHOLARSHIP AND LOAN FUND

(a) It was VOTED that a bill for $651.54 received from Wiggin & Dana, Councelors-At-Law, a substantial portion of which related to legal advice regarding the tax status of the Murdock Fund be paid from the general funds of the Society.

(b) It was VOTED that when the Murdock Scholarship and Loan Fund is in being future bills for services to this fund be submitted to the Fund for payment.

(c) It was VOTED that the sub-committee of the Council appointed (see Council minutes June 20, 1957) to administer and direct the soliciting of funds for the Murdock Fund which was discharged in Item 5, paragraph (d) be appointed by the Council to continue its original purpose.

APPROPRIATION FOR SPECIAL MAILING MAY 14, 1958

It was voted that the sum of $215.50 be appropriated from the general funds of the Society to meet the cost of the special mailing on May 14, 1958 to all members of the Society relating to the Connecticut Medical Service referendum.

It was voted that in the future before a mailing to all members of the Society is carried out, all members of the Council shall be polled by mail or telephone regarding the proposed action.

REPORT OF SUB-COMMITTEE ON THE REPORT OF THE COMMITTEE ON HOSPITALS

Resignation of Dr. Weld as Chairman of this Committee was read, no report was presented and the committee discharged, Item 5, paragraph (b).

SUPPLEMENTAL REPORT FROM SUB-COMMITTEE TO CONFER WITH THE STATE COMMISSIONER ON FOOD AND DRUGS

A supplemental report from the Sub-committee to Confer with the Commissioner of Food and Drugs was presented. It consisted of considerable material relative to the unlawful and irregular practices being employed by physicians allowing unauthorized and unlicensed persons to prescribe or advise refilling of prescriptions in the name of physicians. This report was accepted and it was—VOTED that the report be published in the Connecticut State Medical Journal and it was also—VOTED that the Commissioner of Food and Drugs be requested to underwrite the cost of mailing the report to all members of the Society.

SUPPLEMENTAL REPORT FROM THE COMMITTEE ON INDUSTRIAL HEALTH

The supplemental report of the Committee on Industrial Health which had been distributed with the agenda for this meeting was accepted and it was—VOTED that the Council approve the continuance of the study of matters referred to in the report and empower the Committee on Industrial Health to consult with appropriate committees and councils of the American Medical Association and other organizations.

ESTABLISHMENT OF THE COMMITTEE ON SCHOOL HEALTH AS A SEPARATE COMMITTEE

Comments from the Chairman of the Committee on Public Health and the Chairman of the Subcommittee on School Health relating to the creation of a separate Committee on School Health were presented and discussed. It was agreed that the Council request further statements from the Chairman of the Committee on Public Health and the Chairman of the Sub-committee on School Health preferably after a meeting of the two chairmen in an attempt to reach an agreement on this subject.

MEDICAL ADVISORY COMMITTEE TO THE POISON INFORMATION CENTER

A recommendation was presented from the Joint Conference Committee of this Society and the Connecticut Hospital Association concerning appointments to the Medical Advisory Committee to the Poison Information Center of the State Department of Health. (see Council minutes February 20, 1958) Changes on the Committee had been necessitated by resignations. The recommendations for reconstituting the Committee were: — Nicholas J. Giarman, Richard Judd, Angelo Mastrangelo, Jr., Leopold M. Trifari and Edward T. Wakeman. The name of Clifford Joseph, Torrington was added; Dr. Trifari was named the Chairman.

APPOINTMENT OF WILLIAM A. SINTON TO DANBURY CRIPPLED CHILDREN'S CLINIC

On request of the Technical Advisory Committee to the State Crippled Children's Program, Dr.

William A. Sinton, Danbury, was appointed orthopedic surgeon to the Danbury Crippled Children's Clinic to succeed Richmond Stephens, deceased.

RESIGNATIONS FROM COMMITTEES

The following resignations from committees of the Society were accepted with regret:—Charles S. Culotta from Committee on Mental Health, H. M. Marvin from Editorial Board of State Medical Journal, Levin L. Waters from Committee on State Blood Bank, and David H. Clement from Editorial Board of the Journal.

MANAGING EDITOR OF THE JOURNAL

A letter from Hartwell G. Thompson, Hartford, requesting the attitude of the Council relative to the replacement of Stanley B. Weld as Managing Editor of the Journal was presented. It was voted that no action be taken on this inquiry.

A similar letter was presented from Thacher W. Worthen, Hartford, and it was voted to take no action.

ELECTION OF STUDENT MEMBER

Action on the election of Ralph Katz as a studen member of this Society was deferred for lack o information.

DISCUSSION OF CONNECTICUT MEDICAL SERVICE

There was a general open discussion of matter pertaining to Connecticut Medical Service. Severa questions referrable to the referendum presentl being conducted by Connecticut Medical Servic were directed to Dr. Archambault who is also member of the Board of Directors of Connecticu Medical Service. His general description of the dis tribution of the referendum cards was that the were sent to all participating physicians, to a smal select group of non-participating physicians (abou 60) whose volume of claims had established then on their mailing list, to participating dentists an osteopaths and to an undetermined number o physicians residing in New York, Rhode Island an Massachusetts who practiced close to the state bor der and therefore cared for numerous subscriber

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o the Connecticut Medical Service contracts. As o the necessity for conducting the referendum at his particular time Dr. Archambault offered no eason.

The proposed joint meeting between the Council and the Board of Directors of Connecticut Medical Service was brought up to date. Since the Board of Directors of Connecticut Medical Service was unable to meet with us on May 21, 1958 Dr. Feeney had held conversations with Mr. Judd and Dr. Danaher and it appeared that they could meet with us on Wednesday, May 28th. It was moved hat the Council extend to the Board of Directors of Connecticut Medical Service an invitation to meet with us at 4:00 P.M. on that date in the Barker-Weld Room at the Society's office building. This motion was seconded and carried.

Dr. Ottenheimer raised the question as to whether or not the Council should have a meeting prior to this joint meeting to formulate some sort of attitude and/or expressions of policy which the Council might follow during the discussions. It was moved that the Chairman appoint a committee of four members of the Council to meet with him at 1:00 P.M. on the 28th to consider such matters. The motion was carried. Dr. Feeney then appointed Drs. Davis, Blodinger, Gallivan and Ottenheimer as members of this committee. A question was then raised as to whether or not the Council should have legal counsel prior to and during this joint meeting. Motion was passed to this effect and Dr. Feeney was requested to obtain such counsel.

Additional discussion ensued regarding the bylaws of Connecticut Medical Service, Inc. particularly in reference to Article 1 in the official handbook including all amendments to June 1, 1954. Article 1 includes the following sentence:—"Upon the death or resignation of any member of the Corporation, or upon receipt of written notice to the Corporation from the Connecticut State Medical Society to the effect that a Member nominated by such body is no longer approved, a vacancy shall be deemed to exist and shall be filled upon nomination of the Council of the Connecticut State Medical Society if such vacancy is that of a physi-

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1. Thomas, J. W.: Ann. Allergy 16:128, 1958

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cian member. . . ." Dr. Feeney pointed out that in an amendment to Article 1 that portion referring to "receipt of written notice to the Corporation from the Connecticut Medical Society to the effect that a Member nominated by such body is no longer approved" was deleted and that while the Council had been notified as to changes in the by-laws referable to the Professional Policy Committee no such notification had been received by the Council as to the medical members of the Board of Directors. On this basis it was concluded that the Connecticut State Medical Society had been unwittingly relieved of the power to effect changes in the medical members of the Board of Directors of Connecticut Medical Service. A motion was entertained regarding the solution to this problem but was tabled without action until a later time.

DATE OF NEXT MEETING

It was voted that the next meeting of the Council be held on Wednesday, May 28th jointly with the Board of Directors of Connecticut Medical Service and that the next monthly meeting of the Council be held on Thursday, June 26th.

Joint Meeting of Council and Board of Directors of CMS

Wednesday, May 28, 1958—4:00 P.M.

A joint meeting of the Council and the Board of Directors of Connecticut Medical Service, Inc. was held at the Society Building on May 28, 1958. The purpose of the meeting was to discuss matters of mutual interest.

The Council presented the following facts for consideration by the Board.

1. Up until February 17, 1955, paragraph 2, Article I of the CMS by-laws read: "Upon the death or resignation of any Member of the Corporation, or upon receipt of written notice from the Connecticut State Medical Society to the effect that a Member nominated by such body is no longer approved, a vacancy shall be deemed to exist and shall be filled upon nomination of the Council of the Connecticut State Medical Society if such vacancy is that of a physician member. . . ."
2. An action taken by the Board of Directors on February 17, 1955 amended paragraph 2, Article I of the CMS by-laws. This amendment consisted of the deletion of the words "or upon receipt of written notice from the Connecticut State Medical Society to the effect that a Member nominated by such body is no longer approved. . . ."

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3. The Council has never been notified of this action and only recently discovered that this important change had been made.
4. This change, in effect, has taken away from the Connecticut State Medical Society all power to approve or disapprove the actions of the six members who represent the Society on the Board of Directors of Connecticut Medical Service.

The Council therefore strongly urged the Board, by further amending Article I of the Connecticut Medical Service by-laws, to restore this power to the Society. Only by this action can the Council, representing the Connecticut State Medical Society, negotiate with Connecticut Medical Service on equal terms relative to any other matters of mutual interest.

The Board of Directors agreed to consider the matter and report its decision to the Council at a later date.

The following public statement was issued jointly by Dr. Feeney, Chairman of the Council and Mr. Judd, Chairman of the Board of Directors of Connecticut Medical Service:—"The Board of Directors of Connecticut Medical Service met today with the Council of the Connecticut State Medical Society at the latter's headquarters. Discussion was held of ways and means to promote better understanding of objectives and to promote improvement of their joint responsibilities to the Connecticut public. The discussions will continue."

No official minutes of this joint meeting were kept.

At the conclusion of the joint meeting, the Council met briefly and took the following actions.

1. Because the forthcoming American Medical Association meeting would necessitate several members of the Council missing the Council meeting previously scheduled for June 26, 1958, it was voted to change the date of the next meeting to June 18, 1958.
2. It was voted to authorize the committee of four, appointed by Dr. Feeney on May 21, 1958 to formulate policy for the Council to present at the joint meeting with the Board of Directors of Connecticut Medical Service, to meet and continue negotiations with a similar small committee which may be appointed by Connecticut Medical Service, reporting progress at each subsequent meeting of the Council.
3. The Chairman requested the Executive Secretary to notify Doctors Ryan, Booth and Roswell Johnson that the Council did not desire to act on their letters of resignation at this time from the Professional Policy Committee of Connecticut Medical Service.

Joint Meeting of Sub-Committees of Council and Board of Directors of Connecticut Medical Service

A joint meeting of these sub-committees was held at the Society Building on June 3, 1958. Mr. Robert S. Judd and Mr. J. Edison Doolittle represented the Board; Doctors Feeney, Davis, Blodinger, Gallivan, Ottenheimer and Richards represented the Society.

At this meeting discussions were continued relative to matters considered at the Joint Meeting of the full Council and Board of Directors of CMS on May 28, 1958. Mr. Doolittle presented the results and interpretation of the recently conducted referendum. The matter received full consideration and the viewpoints of all present were expressed.

It was agreed that additional meetings should be held in the near future but no definite date was set for the next meeting.

Meetings Held in June

3	Conference between sub-committees of Council and of Board of Directors of Connecticut Medical Service
4	Toxemia Committee
5	Editorial Board of the Journal
6	Liaison Committee of the State Blood Program
9	Executive Committee of Eye, Ear, Nose and Throat Section
10	Committee on third party payments
11	Accident Prevention
12	Committee on Public Health
12	Medical Advisory Committee, Connecticut Cancer Society
18	Council
24	Committee on the American Medical Education Foundation
25	Committee on Maternal Mortality and Morbidity

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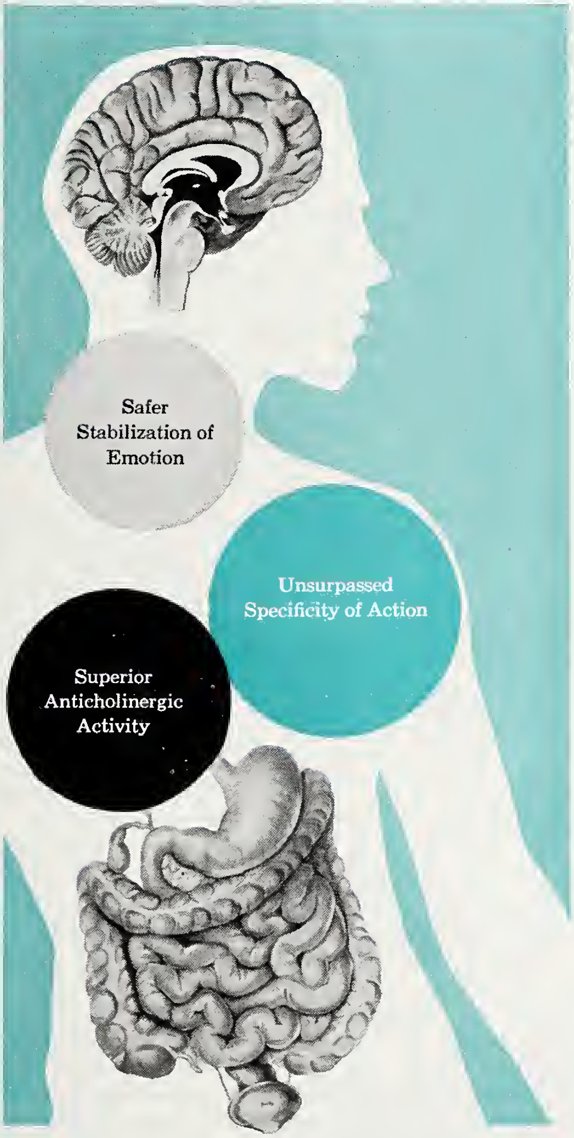
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ANNUAL REPORTS

OF THE CONNECTICUT STATE MEDICAL SOCIETY

1957-1958

(Concluded)

REPORT OF THE CHAIRMAN OF THE COUNCIL

Annual Meeting of the House of Delegates
Connecticut State Medical Society
April 29, 1958

Mr. Speaker:

Since the semiannual meeting of the House of Delegates in December 1957, there have been four meetings of the Council. The minutes of the January and February meetings have been published in the Connecticut State Medical Journal. The principal business of the March meeting was the consideration of relationships between the Society and Connecticut Medical Service particularly with respect to the new Connecticut Contract and its impact upon the Society. The Council considered the actions taken at several special county association meetings held in February and March and developed a collation of the several actions for presentation to the special meeting of the House of Delegates on March 25th. Acting upon the recommendation of the Council, the House, at that special meeting, directed the President of the Society to appoint a special committee to investigate these matters and to make a progress report to the House today. At the March Council meeting, also, Dr. Harold Clarke was named chairman of the Advisory Committee on MEDICARE Plan replacing Dr. Thomas Danaher who had resigned from that post.

The fourth meeting of the Council was held on April 16th and among its other actions the Council completed its consideration of nominations and appointments. Dr. Thomas Danaher's resignation from the AMA House of Delegates was accepted and Dr. Gray Carter was nominated to fill the remainder of the term which ends on December 31, 1959. These actions came too late for inclusion in the printed agenda; but Dr. Carter's nomination does appear on the separate Nominating Committee slate which has been made available to members of the House of Delegates today. At the April meeting, also, Dr. Ralph Ogden was named Delegate to the Council of the New England State Medical Societies replacing Dr. William Horton who had resigned. Other business of the April meeting will appear in full in the Connecticut State Medical Journal.

In the numerous reports which this House will consider today, there are reflected many types of primary and secondary orientations: social, economic, inter-professional, professional and technical. We can take pride, I think, in the long list of members of our Society who have been serving as officers, committee chairmen and members, liaison agents and in various other capacities. The total number so serving equals more than 10% of the entire membership of our Soci-

(Continued on Page 576)

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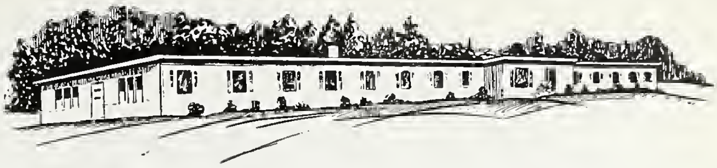

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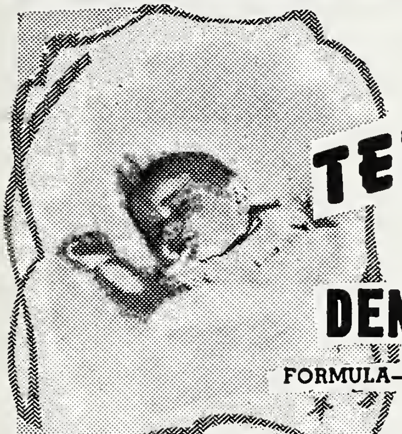

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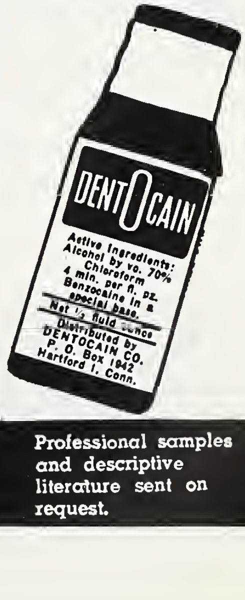

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ety. Each of this large number of members deserves our thanks for contributing his services in the complex organizational arrangement which is essential to develop and nurture the potentialities of all practitioners of medicine in this state.

The current pace of change in professional and technical knowledge is the greatest in all history; and so also is the rate of increase in the interest of all segments of the public in the extent and distribution of health services. To meet the challenge of these constantly and rapidly changing technical and social patterns, it is essential to have an effective organization based upon the wise distribution of duties among many.

It is essential, also, to view activities in the light of over-all goals and the changing needs not only of the profession but of society in general. Such centering of attention on a broad program and on the community at large understandably must conflict with individual or group predilections for stability or entrenchment.

On the other hand, our organization will in the long run lessen its strength as an effective force in the realm of public opinion if it fails to recognize that only by searching differences of opinion can we advance toward the probable outline of the best course to follow in meeting the challenges arising from changing technical and social patterns. The strength of our profession lies in the infinite variety of our skills and the intense individuality of our thinking both as to ideas and as to scale of values. As an organization we must strive to make fullest use of the individuality of our members and resist efforts aimed at achieving mass conformance to anybody's party line.

Today, a major portion of the discussion in this House undoubtedly will pertain to the report of the Committee on Third Party Payments and the progress report of the President's Committee on Connecticut Medical Service. These involve the question of leadership in the control of social and economic circumstances under which physicians' services are rendered when a third party assumes a financial obligation for such services.

It is fitting and proper that the House of Delegates, as spokesman for organized medicine in the State of Connecticut, should give thorough consideration to matters which involve the question of such leadership. It is well to remember, in this connection, that leadership finds its source in understanding; and understanding, in human problems, requires not only a search for and an analysis of all available facts but also a capacity for analysis of the emotional forces that motivate conduct.

I have witnessed startling displays of emotion in the past few months on the part of some physicians. Startling, I say, because our profession has long cherished the attributes of courtesy, dignity and outward calm in the application of keen analysis to human problems of all sorts, emergency or otherwise. I have also witnessed the daring effects of somewhat uninhibited hypomanics to achieve mass conformance to one extreme or the other as though the choice were only between black and white and nothing in between.

It is not impossible—in fact it has not been uncommon in this world—for daring hypomanics to achieve a measure of sudden and surprising success. Some of the best work in the world can be done by hypomanics, as we all know; but we

(Continued on Page 578)

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also know that we must be ever watchful that the efforts are kept in productive channels, for there is often the danger that they'll go on a spree of overreacting, growing increasingly uninhibited and expansive.

As Chairman of the Council, it was my duty to present to the House of Delegates at its special meeting last month the story of the developments with respect to the C.M.S. Connecticut Contract as I saw them up to that time. To those who heard my report, it was evident that, whereas some individual members of the Council became aware of some features of the proposed contract during 1957, there was no official communication concerning such contract from Connecticut Medical Service to the Council during 1957 and no reference was made to any part of such contract in any meeting of the Council during 1957. Early in 1958, less than one-third of the members of the Council were persuaded—or as one councilor put it in his report to his county association, were "booby-trapped"—into writing to the State Insurance Commissioner about the proposed contract.

This was only one of several errors made in the "divide-and-conquer" approach used by the President of C.M.S. Persuading the Chairman of the Committee on Third Party Payments to delete reference to the proposed contract from the Committee report prepared for the December 1957 meeting of the House was another mistake. The whole business of feeding portions of the total picture to various individuals and groups in an effort to get replies which appeared to give approval to the complete proposal was wrong. Additionally—and a fact probably not known to many of the delegates—the President, the President-Elect, the Speaker, the Executive Secretary, and the Chairman of the Council—met with the President of C.M.S. in two sessions prior to the March meetings of the Council and of the House in an effort to get C.M.S. to make some modifications which we could present to the Council and to the special meeting of the House. What we got was a man hotly defending his work and refusing meaningful concessions.

I have not seen the report of the President's Committee on C.M.S. and I do not know what it will say. I do know, however, that in its first meeting with the Executive Committee of C.M.S., on some of the points which the President of C.M.S. had told us he would not make changes, the President's Committee found the C.M.S. Executive Committee willing to make some concessions. It seems, therefore, that there has been some modification of the earlier intransigent attitude expressed by the President of C.M.S.

Now, let us look at the extreme opposite end. There are some members of this Society who steadfastly opposed the formation of a plan of prepayment medical service such as C.M.S. represents and have continued to oppose it over the nine years it has been in operation. These have been joined by others who feel that they, as individuals or in specialty groups, have been discriminated against by C.M.S. The development of the Preferred Contract a bit over four years ago drew others into the opposition camp. Not all of these by a long shot could be called extremists.

For the extremists, however, the development of the Connecticut Contract and the unfortunate methods of approach chosen by some of the spokesmen for C.M.S. set the table for, to them, a real feast. Some of them had enough knowledge to have raised the question of the proposed contract at the December 1957 meeting of the House. Why they did not, only then can say. At any rate, a different method was chosen. Men who could not possibly be called hypomanics or extremists have been drawn into expressions of strong emotions. Hostilities unrelated directly to C.M.S. have been reactivated. The struggle has taken on internecine aspects, in which there is only black and white and nothing in between.

In this all too brief sketch which neglects many important details can be seen the reason for my use of the term hypomanic and for my warning of the danger that hypomanics often will go on a spree of overreacting, growing increasingly uninhibited and expansive. The vast majority of the members of this Society are clear-headed men who take great pride in the individuality of their thinking. They cannot endorse the methods used by C.M.S. in the development of this new contract. They were properly outraged when they were told they'd either go along as participating physicians under the new contract or they'd be struck from the lists under all contracts.

On the other hand, it is difficult to believe that they can long endorse the methods used by the other group of extremists in wholesale condemnations and acts of downright discourtesy. My plea is that, in discussion of this currently major problem and of others, we discuss them seriously and thoroughly, that we search differences of opinion in order to advance toward the probable outline of the best course to follow, and that we resist efforts aimed at achieving mass conformance to anybody's party line.

Respectfully submitted,
John N. Gallivan, M.D.
Chairman of the Counci

(Continued on Page 580)

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SECRETARY'S REPORT

Each year at this time I report to you some details of the Society's operations that are not completely covered by the reports of other officers and chairmen of many committees published in the agenda which you have before you and bring to your attention certain details in those reports.

The Report of Membership is on pages 10 and 11 of the agenda and it should be noted with satisfaction that during the year 1957 there was a net gain of 93 members of the Society although three of the component associations showed one to four net losses. The total of 3,181 as of December 31, 1957 is the largest membership the Society has ever had and is twice the number of members twenty years ago. It represents more than 90% of the physicians in Connecticut, which is high representation among the states. However, it should be noted that membership in the American Medical Association from Connecticut is relatively low, about 80% of membership in the State Society and only eleven state societies have proportionately fewer A.M.A. members than Connecticut. When Dr. Stringfield was President of the Society three years ago he instituted a state-wide effort to increase A.M.A. membership but it was not conspicuously fruitful and in spite of a steady increase in membership in the State Society, A.M.A. membership has declined.

The staff in the Society's office is a well organized small unit that operates with high efficiency. Insofar as it is possible each member of it has special responsibilities but is also familiar with all of the many things that need to be done when absences occur. I wish to compliment them, particularly Mrs. Lindquist, Administrative Assistant and Mr. James Burch, Director of Public Relations, they are all loyal and willing people.

There are two major activities in the office that may not be well known. The larger of these, although in existence but a year and a half is the coordinating function of the Society in the Dependents' Medical Care Program of the Department of Defense under P.L. 569 of the 84th Congress. There is a report on this on page 29 of the agenda. Dr. Harold M. Clarke became the Chairman of the Advisory Committee to MEDICARE recently and other changes on the Committee have been necessary during the past two or three months. The Department of Defense has allotted $361,000 for this program in Connecticut for the present fiscal year and this sum is to be paid to physicians rendering services to dependents of uniformed personnel. All matters of policy relating to this program are determined by the Advisory Committee on MEDICARE and representatives of that Committee are renegotiating the Connecticut contract in Washington on May 8th and 9th with the Department of Defense. When House Appropriations Committee reports out the huge funds bill for armed forces next month, it will append a special report commending reforms in MEDICARE program. Main one, it appears now, will be that the Defense Department exercise its authority to curb freedom of military dependents to choose between civilian and government doctors and hospitals. The majority of members of the House Appropriations Committee are convinced that "free choice" is costing taxpayers additional millions of dollars each year.

The placement service for physicians originated during the closing months of World War II for the purpose of helping recently discharged medical officers to relocate in practice if they did not wish to return to their original locations and to aid young physicians who had not been in practice prior to military service. From that beginning the placement service continued and is a useful plan to any physician seeking location, to communities seeking doctors, established physicians seeking assistants and for filling openings in the state service and industry. Currently 300-350 inquiries are received each year and there is hardly a day that there is not activity in this connection. It involved handling about 1,500 pieces of correspondence last year. Obviously all of the inquirers do not come to Connecticut but some do and the program has become a worthwhile permanent part of the Society's activities. Most of the other state Societies maintain similar services with an exchange of information and it has been occasionally possible to help another state if openings in Connecticut do not appeal to an inquirer. General practitioners are in demand in Connecticut and at present there are about ten or a dozen communities in this state seeking them.

The report of the Society's Committee on State Legislation is on page 17 of the agenda and it will be discussed by Dr. Burgdorf, lately Chairman of the Committee. However, there is one point not included in the report that should be referred to. Dr. Burgdorf, who has been the efficient Chairman of the Committee for many years, asked not to be reappointed for personal reasons that are readily understandable and Dr. John Murray, Greenwich, who has been an interested member of the Committee for quite a time, has agreed to accept the post. Dr. Burgdorf was peculiarly qualified for this Chairmanship and the nature of his employment in Hartford made it possible for him to give a vast amount of time to the committee's work. His knowledge of legislative procedure, his wide acquaintances in the State Capitol and facility to give helpful information to the committees of the General Assembly was a great help to me serving as your registered legislative agent. Your attention is particularly drawn to the last four paragraphs of his report commencing at the bottom of the right-hand column on page 17 and ending on page 18. He makes these recommendations based on long and rich experience.

(Continued on Page 582)

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1959 will be a legislative year in Connecticut and it is already realized that the Society may be engaged in seeking an unusual number of statutory amendments that relate to medical practice. Specific reference is made to the desirability of new law that might amend Sec. 2978d to make it possible for physicians to place prior liens for services rendered on insurance awards made in automobile accidents, particularly when the injured person is not a resident of Connecticut and after his recovery goes home to another state.

The ophthalmologists, acting through the Society's Committee on Eye Care are much interested in amending Chapter 217, the law covering opticians, to make it legally possible for ophthalmologists and their office assistants to adjust and fit eyeglasses.

Some psychiatrists are not altogether satisfied with Sec. 111d enacted in 1955 which has to do with the court subpoena of physicians' records. And the Society's Committee on Accident Prevention is interested in the efficacy and administration of Sec. 1015c enacted in 1953 which requires the reporting of persons subject to epileptic attacks as it relates to the eligibility of such persons to operate a motor vehicle on the highways of this state.

These are diverse subjects and the proper drafting of bills to make amendments to these laws if it is finally determined that such amendments are desirable will require legal skill and experience.

Finally, in case Dr. Donnelly, the Chairman of the Committee on Mental Health is not here to discuss his report later, attention should be directed to the recommendations in it underlined at the bottom of the right-hand column on page 21. This subject is uppermost in the minds of many people in Connecticut and an informative survey of it has recently been completed and published by the Connecticut Mental Health Association.

These are some of the things toward which this House might well direct careful and prompt attention. There are others too, to which detailed consideration must be given in the future.

Respectfully submitted,

Creighton Barker, M.D.
Secretary

REPORT OF THE COMMITTEE ON NATIONAL LEGISLATION

On August 27, 1957, Representative Forand (D., R. I.) introduced House Bill 9467, a bill which would provide free hospital and surgical care for every person eligible for benefits under the Old Age and Survivors program of the Social Security Act. Approximately 12,000,000 people fall into this group, principally persons over 65. Except in emergency, surgery could be performed only by a surgeon certified by the American Board of Surgery or one who is a member of the College of Surgeons. Elective Surgery is not included.

Similar bills have been introduced in many a previous session of Congress and have usually died in Committee. It was early apparent that the Forand bill offered a more serious threat. It had the support of the AFL-CIO and there was promise of a rash effort to report the bill from committee.

In December 1957, before the Christmas holidays, Dr. Olan Meeker and I met with the Congressman-at-Large from Connecticut to discuss the bill and the reasons why the Connecticut State Medical Society opposed the Forand Bill.

In January 1958, because of various other programs that must interest the Congress including missile programs, rising

(Continued on Page 584)

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defense costs, education of scientists, proposed tax revision, etc., it appeared probable that any consideration of the Forand Bill would be delayed until Spring and no public campaign was indicated at this time.

In February 1958 Aubrey Gates of the American Medical Association staff came to New Haven and met with Doctors Meeker, Fiorito, Burgdorf and Barker and representatives of the Auxiliary. I was unable to attend that meeting.

Early in April it seemed certain that the Forand Bill would be heard. By mid-April it appeared that these hearings would begin on or about May 15th. This being so, it would seem advisable for the Society to sponsor speeches before various organizations during early May, probably preferably from May 5 through May 19. P.T.A. groups, hospital affiliates, service clubs, clubs of elderly people are suggested as possible groups particularly interested. If we really believe the Forand Bill to be bad and dangerous legislation, now is the time to stand and say so.

When Dr. Meeker and I met with the Congressman-at-Large from Connecticut, we did stress the opposition of the Connecticut State Medical Society to the Forand Bill. It was for that purpose we had requested the meeting. However, we did take this opportunity to remind the Congressman that at the annual meeting of 1957 the Connecticut State Medical Society by a large vote, had approved compulsory Social Security for physicians.

As a retiring chairman, I would be remiss if I did not express my sincere gratitude to Dr. Creighton Barker. He has displayed a plentitude in patience and a cache in charity.

James S. Missett, M.D., Chairman

REPORT OF THE DELEGATES TO THE COUNCIL OF NEW ENGLAND STATE MEDICAL SOCIETIES

The delegates attended the two meetings of the Council of New England State Medical Societies which were held in Boston on November 6, 1957 and April 16, 1958.

The attendance of the November meeting was the largest in many years and Dr. Angell of Vermont, President of the Council, stressed the importance of the Council as a forum for medicine in New England. Payment of a stipend was authorized for a permanent Executive Secretary of the Council and the discussion of the meeting was centered about the possibilities of developing a package personal insurance plan for all New England physicians. It was the consensus of the November meeting that in addition to the official delegates, all elected officers of the Medical Societies of the New England States be urged to attend future meetings of the Council.

The meeting on April 16, 1958 was not as well attended as had been the previous meeting. The Business Meeting was highlighted by the presentation of certificates to the Past Presidents of the Council. In Connecticut, certificates were provided for the late Joseph H. Howard, M.D., and James Raglan Miller, M.D., and William H. Horton, M.D.

The speaker for the meeting was Mr. James Forrestal of the Washington and Chicago Offices of the A.M.A. who discussed the Forand Bill. It was a most interesting discussion and it is to be regretted that more physicians were not present to have the opportunity of becoming more familiar with the provisions of this proposed legislation which could have such a tremendous influence in the future course of medical practice.

In retiring as an official delegate of the Connecticut State Medical Society to the Council, I would like to urge that this House of Delegates give consideration to having all elected officers of the Connecticut State Medical Society as well as the official delegates attend the future meetings of the Council. It would also seem in order that the membership of the State Society be informed well in advance of the meeting dates and that they are welcome to attend the meetings.

Respectfully submitted,

W. H. Horton, M.D.

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CONNECTICUT MEDICINE

Volume 22 AUGUST, 1958 Number 8

Intravenous Cholangiography
An Appraisal

Ira S. Goldenberg, m.d. and Alfred J. Kummer, m.d.
New Haven

Radiological examination of the biliary tract with the aid of radiopaque media was developed in 1924 by Graham and Cole who visualized he gall bladder after intravenous injection of tetrabromophenolphthalein. In the following year the ame investigators introduced oral cholecystography using sodium tetraiodophenolphthalein. Although he visualization of the gall bladder with these media was good, side reactions were produced in many patients and the search for better oral cholecystographic media continued. By 1944 iodoalphionic acid (Priodax) had largely replaced tetraiodophenolphthalein. In 1952 another compound, 3 (3 amino-2,4,6 triiodophenyl)-2 ethyl-propanoic acid (Telepaque) became more popular because of its ow level of side reactions and its good absorption. The increased density of Telepaque (66.68 per cent odine content) provided better visualization of the gall bladder than the earlier media. Visualization of the bile ducts frequently followed the contraction of the gall bladder after a fatty meal. At the present time it is the compound of choice for oral cholecystography.

A technique for improving the visualization of the bile ducts using a divided dose of Telepaque in combination with paregoric has recently been described by Lowman, Davis and Lawson.[1] With this technique there was adequate visualization of the bile ducts in more than 50 per cent of a group of 110 patients with previous cholecystectomy.

However, there still has remained a need for an opaque medium which would be excreted in sufficient concentration by the liver to demonstrate the bile ducts directly. With such a substance the duct system could be demonstrated even though there was loss of concentrating ability of the gall bladder, obstruction of the cystic duct, or absence of the gall bladder due to previous cholecystectomy.

Such a medium known as Cholografin was introduced into this country in 1953. This was a 20 per cent solution of sodium iodipamide which had been used in Europe about a year earlier. When injected intravenously, this provided a reliable and rapid method for visualizing the entire biliary tract. Later an improved medium, Cholografin Methylglucamine, which is equivalent to a 40 per cent solution by volume of sodium iodipamide, was used. This required only one half the volume injected intravenously to produce a degree of radiopacity equal to that of the 20 per cent solution.

A 52 per cent solution by weight of Cholografin Methylglucamine is now used clinically. Following intravenous administration about 90 per cent of this material is promptly excreted by the liver ap-

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From the Departments of Surgery and Radiology, Yale University School of Medicine, and the Yale-New Haven Medical Center.

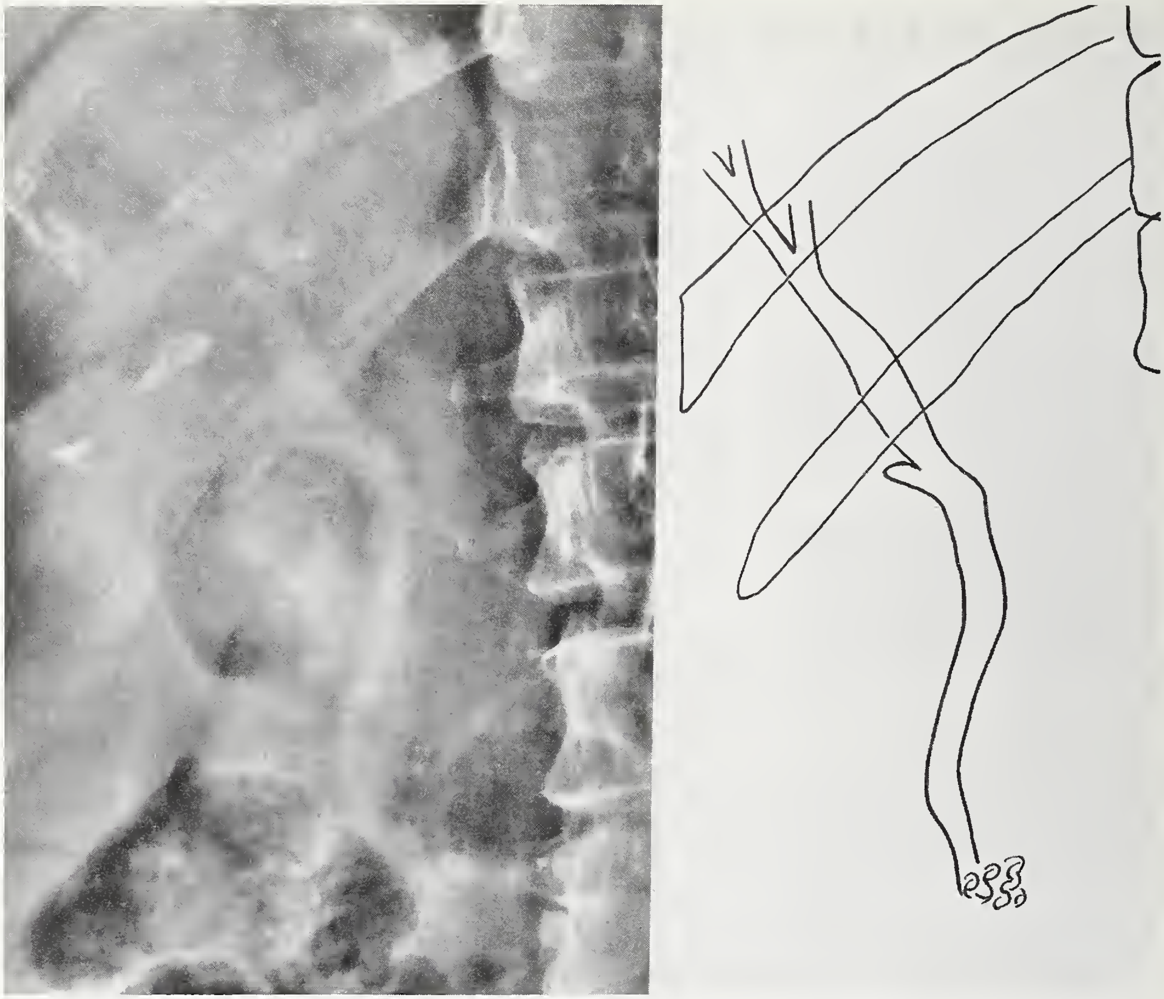

Figure I

Fifty-six-year-old female who had previous cholecystectomy for chronic cholecystitis and cholelithiasis. Intravenous cholangiogram done because of persistent upper abdominal symptoms. Normal cholangiogram with cystic duct stump well visualized.

pearing in the bile within several minutes. Fifteen to twenty minutes later relatively large amounts are present in the bile and a shadow in the common and hepatic ducts is visible on x-ray films. About 10 per cent is excreted by the kidneys except in those individuals with impaired liver function in whom most of the medium is excreted rapidly by the kidneys.

The primary indication for the use of intravenous cholangiography is a persistence of symptoms suggesting biliary tract disease in a patient who has had a cholecystectomy. In the presence of impaired liver function, however, with a total bilirubin over four milligrams per cent, bromsulphthalein retention (45 minutes) greater than 40 per cent, or clinical evidence of jaundice, Cholografin Methylglucamine is not excreted efficiently by the liver and visualization of the ducts may not occur. The test may also be done when oral media have failed to visualize the gall bladder and biliary tree, possibly through lack of absorption of the opaque medium from the intestinal tract, or failure of a nonfunctioning gall bladder to sufficiently concentrate the medium. It may be used in patients who cannot tolerate oral media, and in emergency diagnosis of acute abdominal pain where gall bladder disease may be suspected and prompt visualization of the gall bladder would be of diagnostic aid.

TECHNIQUE

The preparation of the patient is the same as that employed for any gall bladder examination with castor oil administered on the previous afternoon and cleansing enemas on the morning of the examination. Breakfast is omitted if the examination is to be done in the morning, and lunch if it is to be

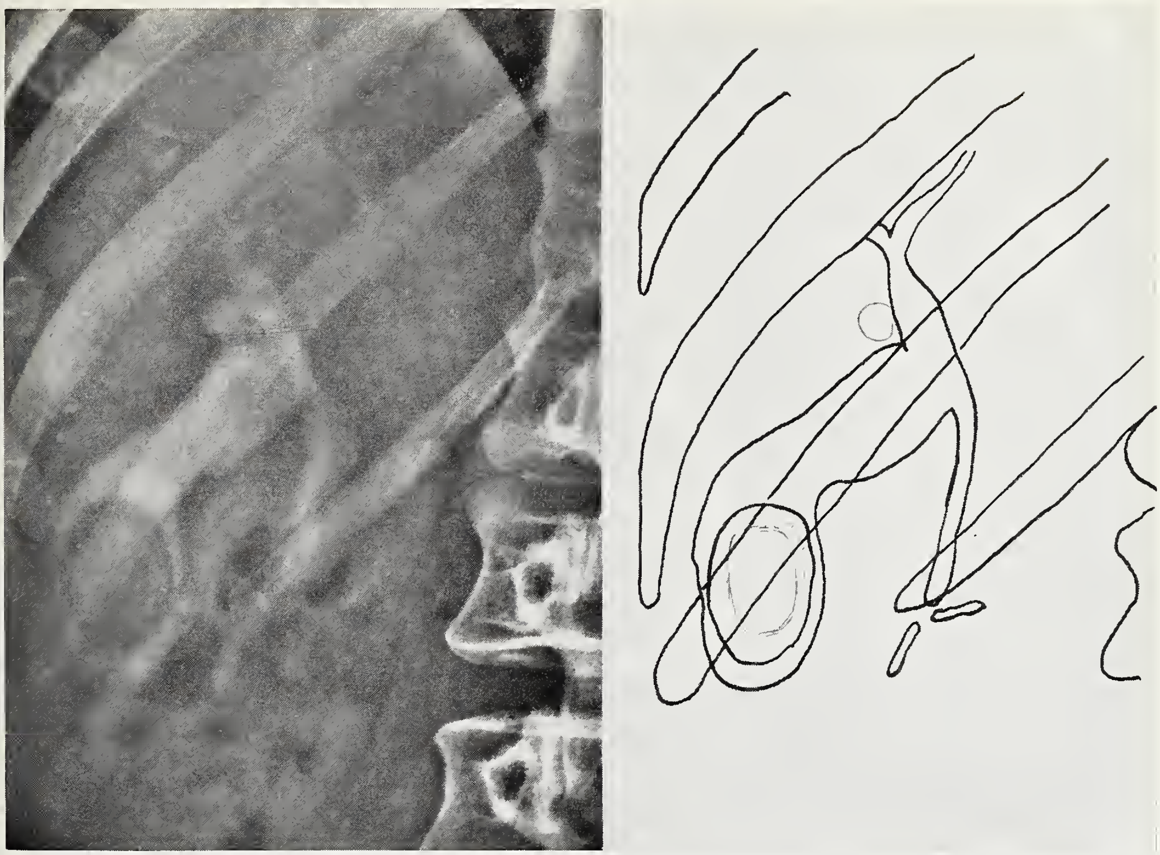

FIGURE II

Fifty-one-year-old female with repeated attacks of acute cholecystitis. Fair visualization of biliary tract by oral cholecystogram. Intravenous cholangiogram outlined whole common bile duct and gall bladder revealing large stone in latter and passage of medium into duodenum. Single stone found at operation in gall bladder.

one in the afternoon. Before the examination is erformed a careful history is obtained from the atient regarding any allergy or drug sensitivity. holografin is not administered to patients giving definite allergic history and in particular a history f iodine hypersensitivity.

With the patient supine and with the left side levated 20 to 30 degrees, a preliminary spot film of he right upper quadrant is made. This provides a cout film of the area and also serves to check the lm position and technique. While this film is being rocessed, a sensitivity test is performed by injectng 0.5 milliliter of the medium intravenously. This s obtained from a one milliliter test ampule which s provided separately in each package containing 20.0 milliliter ampule of the concentrated Cholorafin. It has been found that skin testing is of ittle practical value[2] and only the intravenous method has been used here. After an interval of bout 20 minutes, if no untoward reaction has ocurred to the test dose, 20 milliliters of Cholografin Methylglucamine is injected slowly (8 to 10 minutes) into an antecubital vein. During injection the patient is carefully observed for any untoward reaction, such as a feeling of warmth, flushing and nausea. Nausea indicates that the injection is too rapid. Slowing the rate of injection will usually eliminate this.

Following administration, serial films of the right upper quadrant are made with the patient in the oblique position as noted above. Films are made at 10 minute intervals for the first hour and then at 30 minute intervals for the next one and one-half or two hours. The Cholografin is promptly excreted by the liver in the bile, and the hepatic and common ducts are well visualized within 10 to 20 minutes in normal patients. Opacification remains for approximately 60 minutes, and then gradually fades. This time-density relationship has been found to be important in the diagnosis of partial obstruction of the biliary tract produced by any cause. With partial obstruction there may be a slower increase in density and prolonged opacification of the ducts.

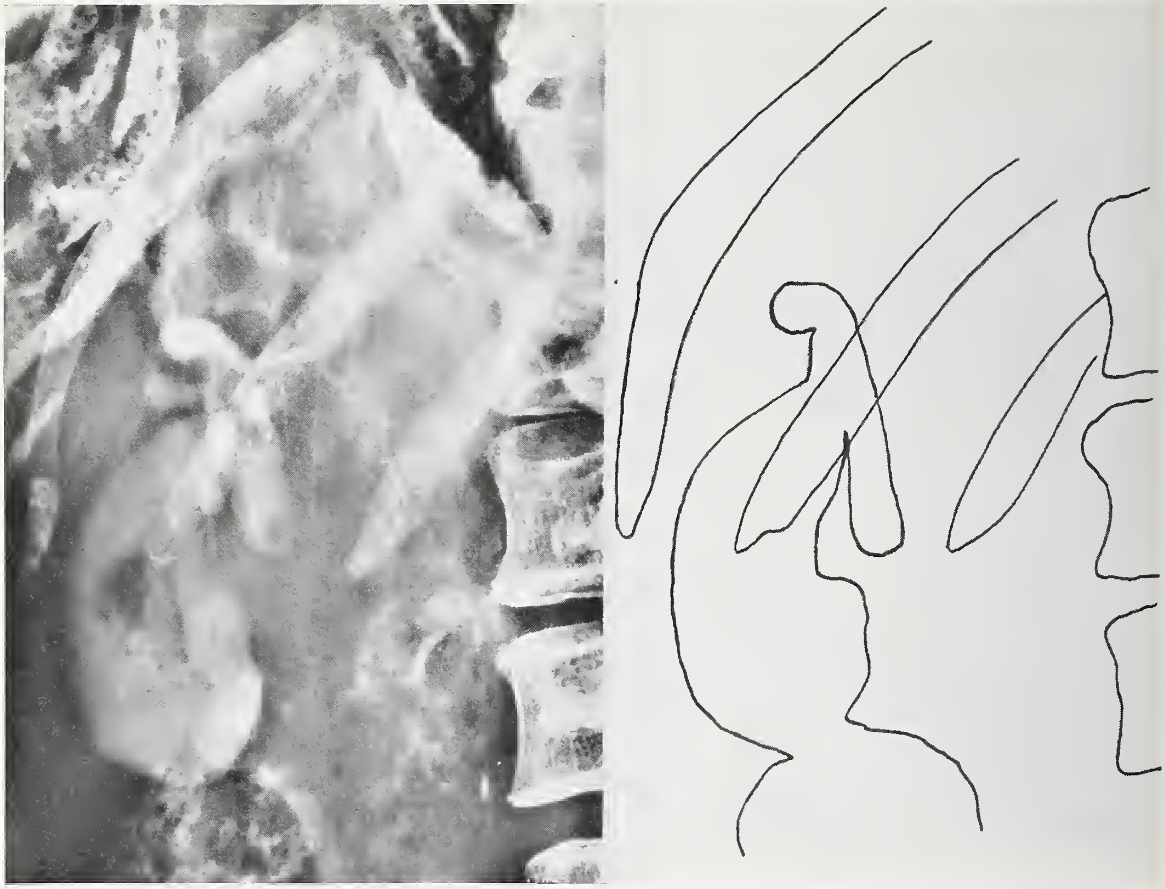

Figure III

Fifty-nine-year-old female who had cholecystduodenostomy performed for nonresectable carcinoma of the head of the pancreas Persistence of abdominal symptoms one year later prompted intravenous cholangiogram which revealed completely obstructed distal common bile duct and well-functioning cholecystduodenostomy.

The normal caliber of the common hepatic and common bile ducts is five to seven millimeters. In a large group of intravenous cholangiograms reported recently from the Lahey Clinic by Wise,[2] only the ducts measuring less than five millimeters in diameter were found to be completely normal at operation. Those above 15 millimeters in diameter all showed evidence of obstruction. In the range from 5 to 15 millimeters, size alone was of no value in predicting patency or obstruction of the duct.

Optimum visualization of the gall bladder, when present and normally functioning, occurs in two to two and one-half hours. The cystic duct whose normal caliber is two to three millimeters is usually inadequately visualized. If there is poor visualization of the ducts, and if there is a question of a radiolucent filling defect suggesting a stone in a duct or any other abnormality, laminography may be used to visualize the ducts more clearly.

CLINICAL RESULTS

Fifty-seven intravenous cholangiograms were done in 54 patients on the University Service in this hospital during the period 1954 to 1957.

Cholografin was utilized in all of these studies except one patient in whom an additional study was done utilizing Intrabilex. All studies were completed without incident except in one 55-year-old female in whom a probable sensitivity reaction occurred. In this patient generalized collapse was seen shortly after completion of the injection of the Cholografin, despite a previous negative intravenous test. Prompt reversal of the symptomatology occurred with simple supportive measures.

The indications for doing the intravenous studies in the present group of patients were varied. In twenty-nine patients intravenous examination was necessary to evaluate upper abdominal symptomatology after cholecystectomy. Symptoms suggestive of biliary tract disease were present in ten patients

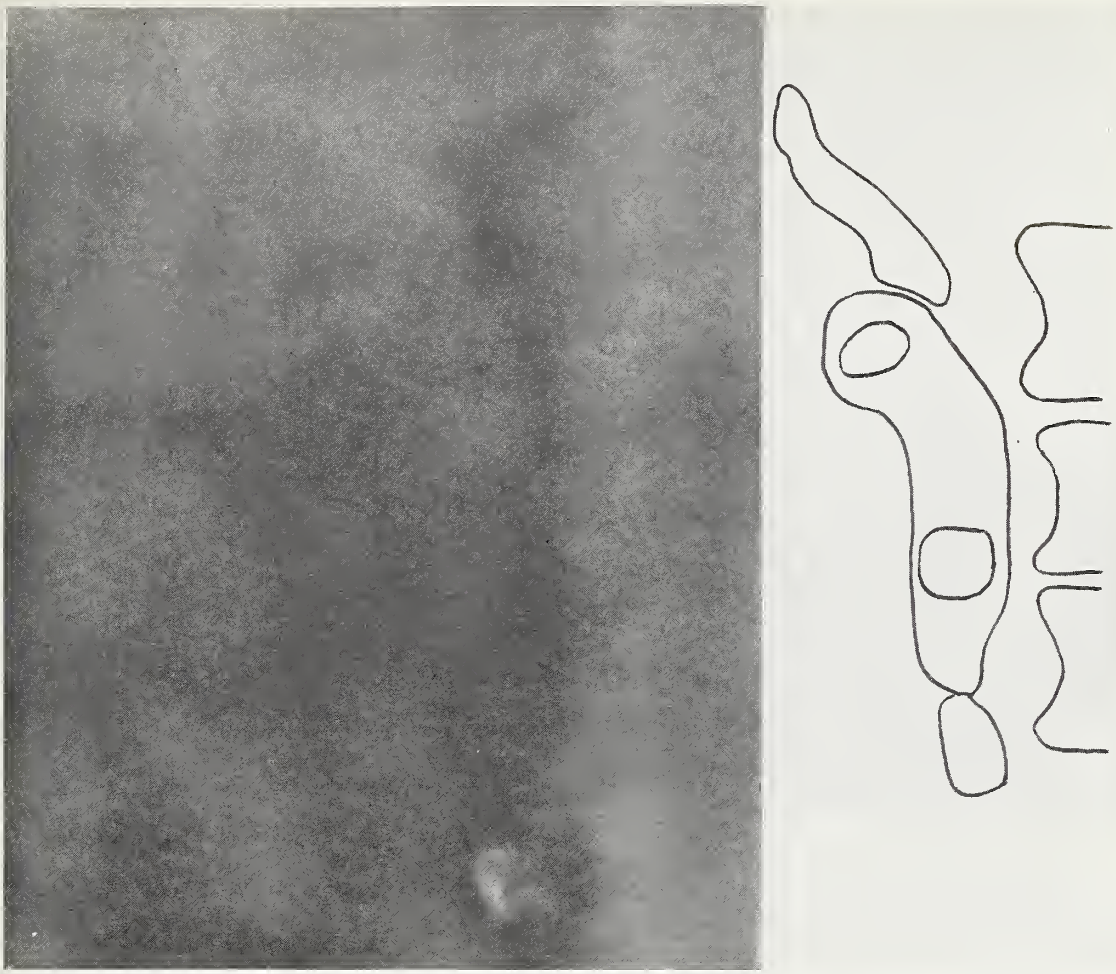

Figure IV

Sixty-nine-year-old female admitted to hospital for jaundice which then cleared. Intravenous cholangiogram done after jaundice cleared because of nonvisualization of biliary tract by oral methods. Cholangiogram interpreted as showing two common duct stones. At operation lower opacity found to be stone in common duct and upper opacity stone in cystic duct. A cholecyst-gastric fistula also was present.

in whom oral cholecystograms with Telepaque had been completed previously with nonvisualization. In none of these patients was the newer paregoric-oral cholecystogram technique used. In 18 patients both oral and intraveonus methods were employed because of inadequate visualization initially by the oral technique. It is important to note that of 15 patients who failed to reveal visualization after single and double dose Telepaque administration, nine had good intravenous Cholografin visualization of gall bladder and bile ducts. Three patients did not have duct visualization after oral and intravenous techniques. In only one case was visualization better after oral Telepaque than after intravenous Cholografin.

Jaundice was present in seven patients and prompted the intravenous cholangiography. Three of these patients (all with total serum bilirubin of less than four milligrams per cent) had the duct system visualized while the remaining patients (all with total serum bilirubin of more than four milligrams per cent) had nonvisualization of the duct system. This finding was similar to other investigators' experience.[2]

In the early period of the present study unfortunately, films were not taken early and often enough so that full evaluation of results is somewhat difficult now. These studies will be omitted from analysis here insofar as demonstration of bile duct size and time of maximum density of visualization of bile ducts are concerned. Forty-two cholangiograms in which the biliary radicles were visualized then remain for critical evaluation. Maximum concentration of the injected material occurred in from

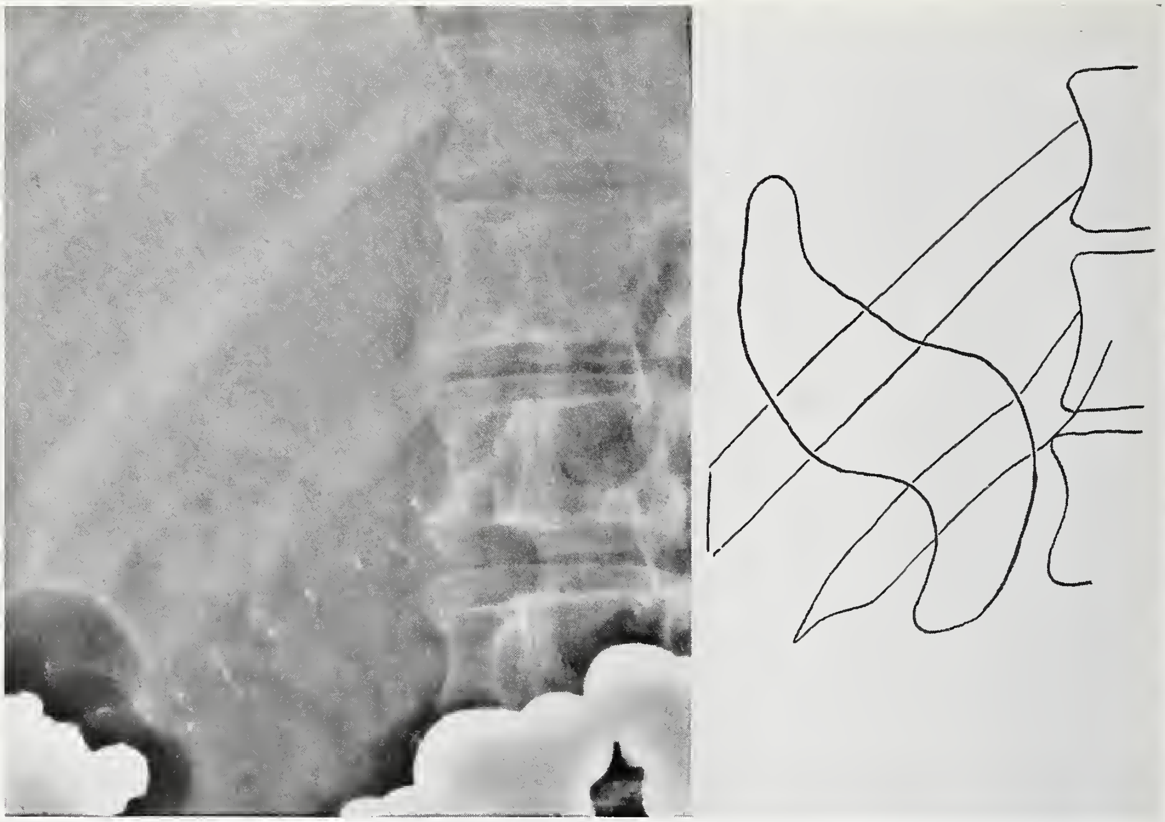

Figure V

Seventy-four-year-old male with cholecystectomy one year prior to onset of jaundice. Intravenous cholangiogram revealed markedly dilated common bile duct. At operation non-resectable carcinoma of the distal common bile duct found.

40 to 70 minutes in two-thirds of these patients. Maximum density occurred in three patients in less than 40 minutes after injection, and in ten patients only after at least 70 minutes had passed. Duct size varied greatly, but only ten common bile ducts were over ten millimeters in diameter at the widest point. There was no constant relationship between the time of maximum density and common bile duct size.

Of the total group of examinations done, 30 were interpreted as being normal insofar as the visualization of the biliary system was concerned. Twelve studies demonstrated definite abnormalities. T latter included cholecystolithiasis in six, cho docholithiasis in two, and common duct obstru tion in two. A large cystic duct stump was seen two patients (Table I).

Table I

Fifty-seven Cholangiograms in 54 Patients.

Inadequate oral cholecystogram, good intravenous study		9
Abnormal intravenous cholangiograms		12
Cholecystolithiasis	6	
Choledocholithiasis	2	
Common duct obstruction	2	
Cystic duct stump	2	
Operation after abnormal intravenous cholangiogram		10
Corroborate cholangiogram	8	
Missed stone in gall bladder	1	
Missed stone in common duct	1	

Only ten patients in the present group had ope tive intervention following the intravenous chola giogram. Pathology found at operation confirm the intravenous study in eight patients. In five p tients in whom Cholografin studies revealed cho cystolithiasis or choledocholithiasis, such stones i deed were found at operation. An enlarged comm bile duct was found at operation in two patients whom it had previously been demonstrated roentgenogram. In one patient in whom no sto were seen on the intravenous study, none w found at operation. Two patients had no stones roentgenography, but at operation stones we found in the common bile duct and in the g bladder.

Figures 1 to 5 illustrate situations which arose the present group of patients and depict how lu an impression can be gained of the biliary tr with intravenous cholangiography.

COMMENT

Until recent years oral techniques offered the only way to evaluate the biliary tract. Severe limitations are present as to the type of patient in whom such a study can be carried out effectively. Previous cholecystectomy is perhaps the greatest deterrant to study of the biliary tract by oral administration of contrast material. Jaundice of mild degree, cystic duct obstruction and poor gastrointestinal absorption of the contrast medium also result in poor studies. The intravenous cholangiogram has solved most of these problems. The method is generally a safe one with only occasional minimal subjective complaints by the patient. In one series of over 1,000 intravenous studies no untoward reaction occurred.[3] That it is not entirely without risk, however, is shown by at least two reported deaths following intravenous injection in humans.[4]

During the past year the paregoric-Telepaque method of oral cholangiography has been perfected. This method is a most valuable one and should be done in any patient in whom standard oral techniques fail, before undertaking the intravenous method. It is completely free of risk and visualization of the biliary tract can be achieved in a high percentage of patients in whom the regular oral method fails.

Our experience with the intravenous cholangiogram has been good insofar as operative corroboration of findings by roentgenogram is concerned. In several cases intravenous cholangiography provided valuable preoperative information.

SUMMARY

The technique of intravenous cholangiography is reviewed with the experience on the University Service of the Yale-New Haven Medical Center from 1954 to 1957. The procedure is a good one, but should be reserved for patients who are symptomatic and in whom all other methods of visualization of the biliary tract have failed. Reactions to the intravenous medium are infrequent, but deaths have been reported. This should temper one's judgment when requesting intravenous cholangiography.

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Unilateral Necrotizing Pyelonephritis

Vincent J. Longo, m.d.
New London

Unilateral necrotizing pyelonephritis apparently cured by nephrectomy has been reported infrequently; to date, eleven such cases have been recorded (Table I). It is the purpose of this paper to add the twelfth proven instance and also to summarize all the unilateral cases of this interesting entity (see Table II).

This disease has been variously termed necrotizing pyelonephritis, renal papillary necrosis, necrotizing renal papillitis, medullary necrosis, papillitis necroticans, diphtheria of the papillae, and Günther's necrosis after G. W. Günther who first established the frequent association with diabetes mellitus (1937). However, since papillary necrosis represents but part of the over-all parenchymal inflammatory involvement, the term necrotizing pyelonephritis seems most reasonably to describe the pathologic picture.[7]

It has been repeatedly emphasized that necrotizing pyelonephritis is found more frequently in patients with diabetes mellitus and in those with urinary obstruction, but it can occur independently. Among diabetics the incidence in women is twice that of men; however, in the absence of the diabetic state necrotizing pyelonephritis is six times more common among men, probably because of the frequent occurrence of prostatic obstruction.

CASE REPORT

A 67 year old white woman was hospitalized in August, 1957 because of fever, abdominal pain and hematuria; she had had diabetes mellitus for four years but this was controlled by diet alone. Two weeks before admission the patient developed gross hematuria with clots, followed by left flank colicky pain, chills and fever to 103. Her general health had been good to the onset of the present illness; a review of systems and past history yielded no other significant information.

Physical examination disclosed an obese woman with temperature 103.6, pulse 110, respirations 24 and blood pressure 130/70. The skin was hot and dry, and there was intertrigo of the inguinal and subpectoral areas bilaterally; there was an aortic systolic murmur (grade II). The Murphy kidney punch test was positive on the left side and the tenderness extended laterally to the flank. There was redness of the vulva and a profuse mucopurulent vaginal discharge.

Laboratory studies revealed the following pertinent dat

Urinalysis: specific gravity 1.015, albumin 3+, sugar
erythrocytes many, leukocytes many.

Culture of the urine and blood yielded Aerobacter ac
ogenes; this organism was sensitive to several of t
broad-spectrum antibiotics (which the patient receiv
in large doses).

Nonprotein nitrogen: 32 mgm. per cent.

Fasting blood sugar: 215 mgm. per cent.

Excretory urography demonstrated a normal right kidn and ureter; on the left there was enlargement of the ren silhouette with poor concentration of the contrast mediu and incomplete filling of the middle and upper calyces.

Cystoscopic examination showed clear spurts of urine fro the right ureteral orifice; the outflow from the left ureter orifice was bloody. A left retrograde pyelogram demonstrat upper infundibular narrowing with caliectasis (grade I The upper and middle calyceal deformity was suggestive a space-occupying lesion of the upper pole. Incidental there was no residual urine or other evidence of mechanic obstruction.

X-ray examination of the colon was within normal limit a metastatic series was negative.

On the sixth hospital day a floor nurse recorded th the patient had passed "a large shred of dark brown tiss in the urine"; unfortunately this was not submitted f microscopic examination.

On the ninth hospital day a left nephrectomy was pe formed. The kidney weighed 220 grams; the capsule w very adherent and there were several cortical abscesses. Tl papilla of the middle calyx was hemorrhagic. Microscop examination revealed changes of acute and chronic pyelon phritis with abscess formation and necrosis of the one ren papilla; there was an abundance of plasma cells. In add tion there was extreme arteriosclerosis. No acid-fast or oth organisms were seen in a direct kidney tissue smear.

The postoperative course was uncomplicated; at the tin of dismissal from the hospital urinalysis was within norm limits. The patient has remained well to the present tin (February, 1958) and has received a urinary antiseptic du ing the first week of each month; this will be continue

CLINICAL FINDINGS

There are two forms of this disease: 1) acute fu minating and 2) chronically progressive.[11] In bot types the patient may suffer from episodic flan pain, chills and fever, dysuria, urgency, frequenc proteinuria, pyuria, bacteriuria, hematuria, oliguri azotemia and prostration. Perhaps the most cor sistent findings are oliguria, azotemia and hemat

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From the Lawrence and Memorial Hospitals.

Table I

Unilateral Necrotizing Pyelonephritis

Summary of Cases Apparently Cured by Nephrectomy

AUTHOR (YEAR)	AGE	SEX	DIABETES DURATION	OBST'N.	B.P.	AZOTEMIA	HEMATURIA	BACTERIA	SIDE	FOLLOWUP
ünther (1937)	57	M	present ? years	0	?	0	0	E. coli	Lt.	8 weeks
arrison (1942)	24	F	present 11 years	0	0	0	+	E. coli	Lt.	11 years*
obbins (1946)	47	F	present 15 years	0	?	+	?	None	Lt.	1 year
	59	F	present 7 years	0	?	+	?	None	Rt.	1 year
etersen (1954)	47	F	absent	0	?	+	+	E. coli	Lt.	?
	39	F	absent	0	?	+	+	E. coli Staph. aureus	Lt.	?
tarklint (1954)	39	F	absent	0	?	?	+	E. coli	Rt.	6 months
	47	F	absent	0	?	+	?	E. coli	Rt.	6 months
wartz (1954)	63	F	present 14 years	0	+	?	0	E. coli Strep. fecalis	Lt.	2+ years
	65	F	present 12 years	0	+	?	0	E. coli	Lt.	3 months**
argent (1955)	61	F	present years	0	+	?	0	None	Lt.	9 months
ongo (1957)	67	F	present 4 years	0	0	0	+	Aerobact. aerogenes	Lt.	6 months

* Patient led a reasonably normal life with the aid of sulfonamides but gradually developed renal failure and died in July, 1951. Postmortem examination disclosed intercapillary glomerulosclerosis and severe nephrosclerosis, but no necrotizing pyelonephritis. (Harrison: personal communication).

** Patient expired from cerebral vascular accident 3 months after nephrectomy.

cia in a septic individual (the first two of these findings were not present in the case reported here, however); the passage of necrotic papillae is, of course, diagnostic.

Although the incidence or severity of necrotizing pyelonephritis is not related to the duration or degree of control of diabetes, it must be considered in the diabetic patient who presents any of the following: 1) sepsis plus urinary signs or symptoms; 2) rapid coma with azotemia in the absence of preexisting pyelonephritis, diabetic acidosis, shock or evidence of tubular damage; 3) sudden exacerbation of low-grade pyelonephritis; 4) hematuria or renal colic; 5) urographic signs (see below).[3]

UROGRAPHIC FINDINGS

The radiographic changes in necrotizing pyelonephritis have been described by several authors;[1,4,10,14] the characteristic urographic deformities are fundamentally due to necrosis of the renal papillae. Thus, one or more of the following signs may be present on the excretory or retrograde urogram:

1) decreased function
2) enlarged renal silhouette
3) caliectasis
4) "moth-eaten" minor calyces
5) filling defects in calyces, infundibula or renal pelvis
6) extravasation into renal cortex
7) calcification of renal papillae.

One must, therefore, look primarily to the calyceal system for the tell-tale signs of this disease, for it may easily be confused with simple pyelovenous backflow, tuberculous and nonspecific pyelonephritis, nonopaque stone and renal tumor.

PATHOLOGIC FINDINGS

The renal parenchyma may show scattered abscesses but the typical lesion is found in the papillae, the distal two thirds of which are necrotic. The tips are usually gray-white or yellow-green and are sharply demarcated from the relatively normal base of the corresponding pyramid. Characteristically, the columns of Bertini remain uninvolved.

One or more papillae present an infarct-like coagulation necrosis; the adjacent reactive zone is usually filled with acute and chronic inflammatory cells. Almost always, there is an abundance of *plasma cells* in this area. Bacteria masses are frequently demonstrable throughout the parenchyma, most commonly varieties of Escherichia coli and the Staphylococcus.[8]

PATHOGENESIS

The pathogenesis of this lesion is obscure; experimentally, renal papillary necrosis has been produced in the absence of the diabetic state, without obstruction or infection.

A number of factors must be considered to adequately explain the development of this specific form of pyelonephritis. Anatomically, the renal papillae and pyramids are provided with a relatively poor blood supply. Embryologically, it will be recalled that the nephrogenic cap supplies the anlage which ultimately form the renal cortex and the columns of Bertini while the ureter, pelvis, calyces and pyramids are derived from the metanephric bud; it has been proposed[21] that this dual origin may play a role in the pathogenesis of necrotizing pyelonephritis because of the separate and distinct nerve supply of each segment and its hypothetical reactivity to various disease states. Physiologically, the blood flow to the renal papillae is diminished because of the increased blood viscosity which has been effected by the reabsorption of nonprotein substances from the blood.[3]

Obliterative vascular disease may be present, and this can further enhance the ischemia to the involved area.[3]

The diabetic state, especially when accompanied by acidosis, so alters the inflammatory response that necrosis becomes a prominent feature. Indeed, one may not incorrectly consider this disease to be a critically localized form of diabetic gangrene.[3]

Whether or not the enzymatically destructive forces of the various toxins are of importance is purely conjectural.

Finally, one cannot ignore the mechanical factor of compression of the delicate pyramidal tissue by increased intrapelvic pressure or inflammatory edema.[13]

Necrotizing pyelonephritis therefore seems to be a form of ischemic necrosis, but the exact mechanism which produces the lesion is at presen unknown.

Table II*

Summary of Cases: Unilateral Necrotizing Pyelonephritis 1877-1957

		DIABETES			
		PRESENT		ABSENT	
		URINARY OBSTRUCTION			
YEAR	AUTHOR	PRESENT	ABSENT	PRESENT	ABSENT
1888	Turner		1		1
1899	Stoudensky			5	
1934	Grauhan			2	
1937	Foulon				1
1937	Froboese		7		
1937	Günther	2	1		
1937	Praetorius			1	
1938	Junker		1		
1938	Alken		4		
1938	Schneider				1
1939	Olsson		1		
1942	Overzier			1	
1942	Harrison		1		
1946	Robbins		2		
1947	Edmondson	4	4	9	1
1947	Dahlmann		1		
1949	Robbins		3		
1950	Gaustad	2	2	1	
1950	Muirhead			1	
1952	Knutsen		1		1
1953	Silbertstein			1	
1954	Garrett		1		
1954	Petersen				2
1954	Starklint				2
1954	Swartz		2		
1955	Sargent		1		
1956	Cates	1	1		
1956	Whitehouse	2	6		
1957	Simon**			11	1
1957	Longo		1		
	TOTAL (94 cases)	11	41	32	10

* Taken in part from Mandel.[11]

** Personal communication.

As has been stated, renal papillary necrosi appears to be a nonspecific response to many form of renal insult. Experimentally it can be producec by ligation of one rabbit ureter plus intravenou injection of pyogenic organisms (Robbins), simpl ligation of a ureter (Stoudensky), unilateral uretera obstruction with retrograde injection of organism (Alberren), intravenous injection of Staphylococc in the presence of intact ureters (Christ), uretera ligation (unilateral or bilateral, dog) combinec with contralateral nephrectomy (Muirhead), feeding of fat-free diet to rats (Borland) and injectio of tetrahydroquinoline (Rehns) or vinylamine int rabbits (Levaditi).[11]

EATMENT

Since necrotizing pyelonephritis represents such virulent renal infection, prophylaxis is certainly paramount importance. The indiscriminate prac-ce of intermittent or continuous indwelling ure-ral catheterization must be condemned in all tients, but especially in diabetics, for they tolerate ost infections poorly; the abuse of the catheter ay serve to initiate and perpetuate such a urinary fection.

Once established, the infection must be treated gorously with the most effective antimicrobial gent. The patient who has apparently recovered om any urinary infection should be reevaluated eriodically to insure against residual or recurrent isease. The intermittent use of a mild urinary tiseptic (for example, during the first week of ch month) seems to offer a rational safeguard; ersonal examination of the urine by the physician resh wet smear, Gram stain, clean voided urine for lture, sensitivity and colony count, as indicated) ill determine the efficacy of treatment and the fety of discontinuance of such a program.

Naturally every effort should be made to control e diabetic state and, of course, any urinary bstruction must be relieved by appropriate easures.

If the necrotizing pyelonephritis is unilateral, ephrectomy seems to be indicated, provided that e remaining kidney is not compromised.

UMMARY

The clinical and pathologic features of necrotiz-g pyelonephritis are reviewed. Attention is irected to the unilateral form of this interesting ntity and the twelfth proven case apparently cured y nephrectomy is presented.

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A Staphylococcal Problem in a Maternity Unit

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Staphylococcal infections in the nursery as well as in other areas of the hospital have become a major problem. The magnitude of these infections is such that maternity units in some hospitals have had to be closed by health authorities. To date, we have seen very little of this problem in Connecticut. The purpose of this article is to report a small but definite outbreak in a community hospital and the measures taken to bring it to a halt.

Middlesex Memorial Hospital is a nonprofit general hospital serving a county with a population of about 80,000. The bed capacity is 168 and there are 41 bassinets and 27 maternity beds. Approximately 1500 babies are delivered here in a year. The average hospital stay of mother and infant ranges from four to six days.

In the summer of 1957 various physicians who were caring for newborns began to report the presence of impetigo occurring about a week after discharge. A few of these cases were cultured and the lesions were found to be due to *Staphylococcus pyogenes* var. *aureus,* coagulase positive. These cases were brought to the attention of the pathologist and the obstetrical nursing supervisor. A committee was promptly formed consisting of the pediatric staff, the pathologist, the administrator, the director of nursing, the assistant director of nursing, the obstetrical nursing supervisor and the city health director. It was estimated that eight cases of impetigo had occurred in a two week period. No other forms of staphylococcal infection had been reported up to this point.

Upon the formation of the committee a definite plan was followed.

A. Cultures were obtained on all newborns on the first, second and third days of a week. These cultures were from the nose, throat, skin and rectum. Cultures were also taken of air and various fomites.

B. Aseptic technique was rehearsed among the nursing personnel and physicians.

C. The committee decided to meet weekly to review new cases as they occurred and to take any additional steps that were deemed necessary to hel control the infection. The local and state depar ments of health were notified. The local director health, medical and nursing representatives fro the Bureau of Maternal and Child Hygiene and physician from the Bureau of Preventable Diseas of the State Department of Health met with us various times both to advise us and keep informe of the progress of the situation.

D. The public health nurses in the county we present at a conference held with members of th hospital committee as panel discussants. At th meeting they were requested to report to the ho pital pathologist all cases of probable staphylococc infection in newborn infants or in recently di charged mothers. Special report slips were fu nished.

E. Nasal cultures were obtained from all ph sicians, nurses and other individuals whose wor took them into the nursery area.

F. Three and one-half months later repeat cu tures were obtained from all newborns in the sam manner as under (A).

The nursery accommodations consist of fou separate nurseries with a capacity of seven to eigh bassinets each, a premature nursery with five i cubators and an isolation nursery with four ba sinets. It was the policy to use an admission nurser for twenty-four hours. Thereafter, if the conditio of the baby was satisfactory, he was transferred to nursery close to the mother. Thus newborns of a ages were together. Nurses and physicians used bar of soap for washing of hands between examina tions of infants. Clean gowns were worn by phys cians. Dry technique for the infant's skin wa employed. All cleaning of floors and walls was don with Masslinn cloths or wet mopping.

The *control measures* adopted were:

1. Physicians and nurses used hexachlorophen detergent soap for hand washing between each e amination. Faucet handles are of the elbow typ and physicians and nurses were instructed to use th paper towels or elbows to close the faucet. Gown were used by the physicians and other personne

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From the Middlesex Memorial Hospital.

Table I

istribution of Staphylococcal Cultures before and after Adopted Program

TE:	11/57	3/58
ose	7	3
hroat	5	2
ectum	3	3
in	6	8
	—	—
otal	21	16
	= 18.0%	= 9%
	—	—
otal ♯ cultures	116	179
TAL INFANTS POSITIVE	13 = 50%	7 = 16%
	—	—
TAL INFANTS CULTURED	26	44

Table II

Staphylococcal Phage Types and Sensitivities in Newborn Cultures before and after Adopted Program

	SENSITIVE TO PEN. & ERYTHRO.		RESIST. TO EITHER PEN., ERYTHRO., OR BOTH	
PHAGE TYPES:	11/57	3/58	11/57	3/58
52, 42B, 44A, 81	5	5	3	0
6, 47, 54, 75	4	0	0	0
54, 44A	0	0	1	0
52	0	2	0	0
3A	0	4	0	0
No phage reaction	8	5	0	0
	—	—	—	—
Total ♯ of positive cultures	17	16	4	0

ntering the nursery but masks were not used. The tethescope was wiped with alcohol before each xamination.

2. Bi-weekly, then weekly nasal cultures were aken of all prematures.

3. Outside air was utilized for the nurseries hrough window vents as much as possible.

4. The use of an admission nursery was discontinued and infants were admitted to a nursery dur-ng a twenty-four to forty-eight hour period until hat nursery was reasonably filled. At that time, this ursery was closed to admissions and another unit was used. Thus all infants of the same age were kept together. When all infants were discharged rom their respective nurseries, a thorough cleaning nd airing was done before it was used again for dmissions. The nurses utilized the nursery housing he youngest infants as their main nursing station o observe apneic or cyanotic spells. Where possible, a nurse or aide was assigned to each unit and did not circulate between units.

5. Each infant was assigned a daily autoclaved aundry pack consisting of diapers, pads, sheets, spreads and shirts.

RESULTS:

The first study of newborns and of the nursery environment was undertaken in November of 1957. One hundred and fifty cultures were taken; 32 from ir, faucet handles, lotions, ointments, and stethescopes, and 116 from infants. The infant sites were nose, throat, skin and rectum. Cultures were plated on trypticase soy-agar medium and sensitivity tests were done with sensi discs. Sensitivities were run against penicillin, streptomycin, chloramphenicol, Furadantin, tetracycline, terramycin, erythromycin and novobiocin. Bacteriophage typing was done by the Connecticut State Department of Health laboratories. In March of 1958 similar cultures were obtained, comprising a total of 176 cultures on forty-four infants. The results are illustrated in Table I and Table II.

At the height of the problem in November of 1957, twenty-one positive cultures were obtained of 116 cultures taken, or 18.0 per cent. Of the twenty-one positive cultures, eight were of the phage type 52, 42B, 44A, 81 (hereafter to be referred to as phage type "81"). These cultures were obtained from five different infants. Thirteen babies, or 50 per cent of the twenty-six infants cultured, had one or more positive cultures. Four months later, in March of 1958, sixteen positive cultures were obtained of 176 cultures taken or 9 per cent (less than half of the previous number of positive cultures). At the same time, only seven infants were positive of forty-four cultured, or 16 per cent again, less than half of the previous number of positive cultures. Only one of these infants had the "81" phage type of staphylococcus. This one infant yielded five of the sixteen positive cultures.

In January of 1958, 157 nose cultures were obtained from personnel who frequented the nurseries. These personnel included physicians, nurses, aides and members of the housekeeping department. Of the 157 cultures, twenty-eight or 18 per cent were positive for staphylococcus. Three personnel, all physicians, were of the phage type "81", four had type 7, three, type 44A, eight were of miscellaneous types, and ten gave no reaction to the phage typing. The three positive physicians were recultured one week later and found to be negative for staphylococcus. They were not treated.

In the period between the beginning of this study (November, 1957) and the institution of the preventive program in January, 1958, eleven cases of impetigo in newborns following discharge were reported. Five were cultured and four were of the "81" phage type and resistant to all antibiotics except chloramphenicol, novobiocin and Furadantin. We also had three cases of breast abscesses in mothers, three cases of scalp infection in newborns and three cases of pneumonia. One of these latter cases was a re-admission of an infant born here who developed staphylococcal pneumonia and empyema at two months of age and survived. The other two cases illustrated an interesting sequence of events. Both were 1000 gram premature twins. One twin died of fulminating staphylococcal pneumonia and empyema, developing symptoms but a few days before death. When this occurred, we instituted nose cultures on a bi-weekly basis. The other twin was found to have phage type "81" in the nose. The infant was otherwise doing well and gaining weight. We none the less placed this infant on prophylactic novobiocin and chloramphenicol. Two days later the infant showed cyanosis and tachypnea. An x-ray of the chest revealed scattered pneumonic infiltration. This twin survived.

Since the institution of the preventive program, in January of 1958, we have had four cases of impetigo following discharge in a two month period.

DISCUSSION:

It has become evident from the limited work we have done that the institution of the simple measures of separation of infants according to age and the strengthening of aseptic technique have been sufficient to significantly decrease both the morbidity of staphylococcal disease and the carrier state. We noted that our problem began in the late summer and early fall months and, in reviewing the experience of others[5,6,7] we have found that the problem frequently started in the fall and early winter months. The reasons for this seasonal incidence rest upon three possible factors. The first may have to do with the amount of outside air that the nurseries get during the summer months as compared with the fall and winter months. The peak incidence of September and October, however, where there is little actual change in airing, does not seem to corroborate this factor. The second may have to do with the increased clinical incidence of pyoderma noted in the community during summer months. The third may be due to the factor of peak census in the nurseries. We found that the peak monthly census occurred in the months of June through September.

At our weekly meetings we discussed the use of prophylactic antibiotics as a measure for the future if the steps already taken proved to be inadequate. Antibiotics, although successful without complication in one study,[5] were successful only in that manifest pyoderma was postponed until after discharge in another and was the cause of the emergence of a resistant strain along with a considerable incidence of diarrhea.[7] Our "81" strain was, unfortunately, frequently sensitive only to chloramphenicol, novobiocin and Furadantin. We had considerable more hesitancy to the use of the above antibiotics on a routine basis than one would for the use of erythromycin. We also felt that the emergence of a resistant strain would leave us little t work with in the event of a major epidemic outbreak. The most frequent combination of antibiotics that we used in the event of staphylococca disease or known nasal carrier state was novobioci and chloramphenicol. We found these to be satisfactory.

The use of masks was considered but discarded Masks are known to be effective for only a fe minutes of use.[8] However, in our nurseries we hav always required masks to be worn by physicians i the event of an upper respiratory infection, wherea full time personnel were barred under the sam circumstances.

Hexachlorophene baths were demonstrated b Pennoyer and Sullivan[2] to lower the incidence impetigo by approximately one tenth. Baldwin *al*[3] found that this technique lowered the rate nasal colonization and the "81" strain disappeare within ten days after institution of such therapy the carrier personnel working in the nursery we removed. Shaffer *et al*[5] found that 3 per cent hex chlorophene baths eradicated hospital pyoderm but not pyoderma following discharge and did n lower the nasal carrier rate. It seems probable th this technique, used in conjunction with the r moval of nasal carriers among personnel, may effective in stopping an epidemic.

We persisted in using dry technique on our i fants as we attempted to halt the outbreak by oth means. Dry technique, however, has been shown Baldwin *et al*[3] to enhance air contaminatio Staphylococci were isolated from the crib railin matresses, and lint dust around the cribs of babi who were carriers. Wysham *et al*[4] feel that air is t primary source of cross infection with the epiden organisms and found that the bedding was al positive in those infants who were carriers. Aft the linen and blankets were changed they also not an increase in the number of positive air coloni Numerous authors therefore recommend[1,7] w mopping and airing in an effort to lessen air contamination. Another point in favor of air as a ource of the epidemic is that colonization occurs in he nose of afflicted infants prior to the skin. This was demonstrated by Torrey and Reese.[9]

Overcrowding is one of the more obvious factors n precipitating this problem. Wysham *et al*[4] found hat when the nursery was crowded, 92 per cent of he infants were colonized. If the census was low, 20 per cent were colonized. Interesting work has also been done to show that after seventy-two hours more infants were colonized. Baldwin *et al*[3] have shown that ten per cent of infants were colonized at three days of age and thirty per cent at six days. Many authors recommend that infants be discharged as early as possible in order to halt an epidemic, probably before the third day, especially if the mother is breast feeding. They also recommend rooming-in with intimate mother to baby contact and minimum nurse to baby contact as an optimal preventive method.

Baldwin *et al*[3] and Shaffer *et al*[5] have shown that permanent carrier personnel have frequently been the source of an epidemic. In our work with the culturing of all known infant contacts, only three physicians were found to have the "81" strain and two of them rarely came in contact with newborns. Repeat cultures on these physicians were negative, illustrating a transient carrier state. A few of the nurses, however, did colonize organisms of the phage types 7 and 42B, and a few sporadic cases of impetigo did occur with these types. We did not transfer or treat personnel, however, for two reasons. First no permanent "81" strain carrier was found and secondly, we felt it would be far more practical to handle the situation through other measures that would block infant to infant spread. We frequently hire or transfer personnel on a temporary basis throughout the hospital and felt that we would have little long range control over this aspect unless we cultured all personnel on a continuing basis.

A third source of infection that has been postulated is that of the introduction of the epidemic strains by the mothers. In those instances where the mothers in our maternity unit developed breast abscesses, the infant also had impetigo. The strains were obviously similar in both instances. However, Wysham *et al*[10] feel that the mother probably acquires the infection from the infant during nursing and, from their work, it did not appear likely that the mother was the source of the infection.

Although we were not afflicted with a major epidemic we do feel that this outbreak would have become far more serious had we been lax about the institution of preventive measures. Certainly our awareness of the problem, and knowledge gained from reading the literature and weekly discussions helped save the life of the second premature with pneumonia. Emphasis should be placed on the need for vigilance in the diagnosis and treatment of the occasional staphylococcal infection which could be the source of an epidemic.

Probably the single most important step taken, was the segregation of infants according to age. This effectively interferes with infant to infant spread and confines the carrier or colonized infant to a single unit with infants all of the same age. Thus, with discharge of the infants and cleaning of the unit, the chain is broken. We found this technique easy to accomplish with four separate units and not inconvenient. Certainly a marked drop in impetigo following discharge was noted soon after this procedure was instituted.

SUMMARY:

The presence of an endemic state with a minor outbreak of staphylococcal disease among newborns is reported. The effective control of such an outbreak with more stringent aseptic technique and the segregation of infants by age is outlined.

A brief review of the present knowledge concerning the factors of transmission of the bacteria is presented.

Emphasis is placed on the various steps to be taken when this problem arises since the authors feel that, in the near future, no hospital may be immune to the ubiquitous staphylococcal problem.

CONCLUSIONS

The following steps should be taken in the event of an outbreak of staphylococcal disease:

1. Recognize that the problem exists and report impetigo of the newborn to the hospital, city, and state health authorities. It is important to establish a mechanism of reporting within the hospital structure on postdischarge cases as this may be the only warning of an impending epidemic.

2. Establish a committee on infections and invite the local and state health authorities to aid in the study.

3. Consider the necessary steps to be taken in order to bring the problem under control. The three most important steps are: a. tabulation, b. asepsis, and c. segregation by age groups.

Bacteriological studies were done by Miss Josephine Pyle, M.T. (A.S.C.P.), Department of Bacteriology, Middlesex Memorial Hospital laboratory.

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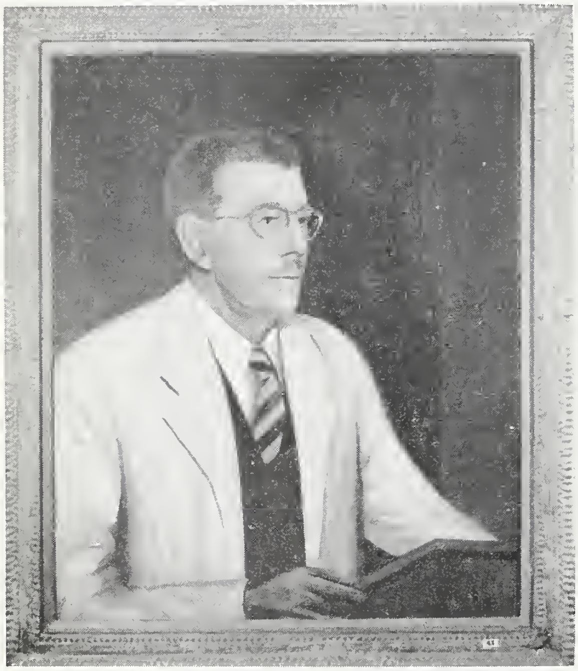

CONNECTICUT PHYSICIANS
ART ASSOCIATION

Noel Creadick, M.D.

First Prize—Physicians Art Exhibit,
American Medical Association,
Atlantic City, 1955.

Portrait by

JOHN M. FREIHEIT, M.D.

Chairman of Department of Obstetrics and Gynecology
Waterbury Hospital.

The Risk of Anesthesia

A Program Is Suggested to Reduce It

Nicholas M. Greene, m.d.
New Haven

The risk associated with anesthesia has always been recognized as one part of the overall risk to which a surgical patient is exposed. Only in recent years, however, has data become available defining the part anesthesia plays in determining the total operative risk. In the light of these data it is appropriate to examine the matter of the risk of anesthesia, to define its importance, to review certain factors relating to it, and to discuss what can be done to decrease it.

The term "deaths associated with anesthesia" may be defined as those fatalities in which the state of anesthesia is the causative or precipitating factor responsible for death. Deaths associated with anesthesia may be divided into two categories, those in which anesthesia is the sole cause of death and those in which anesthesia is a contributing factor. Representative of deaths due primarily to anesthesia are: (1) cases in which death occurs during induction (before the operation has started); (2), those patients who die as a result of vomiting and aspiration during induction; and (3), those who die during minor surgery which in itself could not possibly have contributed to the death. Examples of deaths in which anesthesia is a significant contributing factor are: (1), deaths of patients with liver disease dying of liver failure following anesthesia and surgery (often minor); (2), deaths due to postoperative pulmonary infections; and (3), some deaths due to postoperative acid-base or fluid imbalance.

THE PROBLEM

Beecher and Todd in 1954[1] reported a survey covering all anesthetics given over a five year period in ten university hospitals. They found that the death rate was approximately 1:1600 among 600,000 patients anesthetized. Other reports since that time have confirmed this ratio of about 1:1600.[2,3] In Connecticut, a survey currently in progress,[4] is in agreement with the results reported by Beecher.

The figure of 1:1600 brings the question of anesthetic risk abruptly out of the realm of the academic. This figure as determined by Beecher includes all types of anesthesia, from injection of a local anesthetic for excision of minor lesions (with a relatively low death rate) as well as the more major and more complicated anesthetics (with a higher death rate). When it is realized that approximately 8,000,000 anesthetics are given annually throughout the United States the risk of anesthesia assumes the aspects of a major problem. If the death rate from anesthesia is the same throughout the country as it is in the cases analyzed, then the national death rate approximates 5,000 per year. In 1956, by comparison, there were 590 deaths due to poliomyelitis, 1,060 due to rheumatic fever, 1,900 due to appendicitis, and 1,570 due to deliveries and complications of pregnancy.[5]

With a death rate of 5,000 per year, why then is this problem so little appreciated? There are two reasons. First, in any one individual's experience long periods may pass before he has anesthetized 1,600 patients. A false sense of security may develop based on the clinical impression that anesthetic deaths are rare. Secondly, national death rates are calculated from death certificates. This method has well recognized statistical limitations, but these are especially noticeable in relation to deaths associated with anesthesia. Such deaths rarely appear on the death certificate as "anesthetic" death or "anesthesia contributory" deaths. A patient with coronary artery disease dying during or immediately after operation is usually listed as dying of coronary artery disease even though anesthesia may have been a major contributing factor or even the principal cause of death. Inaccurate completion of death certificates may occur either from a lack of understanding of what constitutes an anesthetic death or because of medicolegal considerations. There is the wide discrepancy in estimates of the percentage of deaths due to anesthesia depending upon whether the deaths are being reviewed by statisticians or whether they are being reviewed by anesthetists. It should be emphasized that anes-

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thetic deaths are not necessarily evidence of malpractice. Some anesthetic deaths are preventable. Others are not. Those which are not preventable by present standards reflect the fact that today there is no such thing as an anesthetic agent or technic which is free from risk.

Surgical mortality for minor operations has dropped almost to the vanishing point. There has not been a corresponding decrease in the risk of anesthesia. A situation therefore arises in which the anesthetic risk exceeds the surgical risk for certain operations. Colles' fractures or hemorrhoids are not lethal conditions, but the anesthesia given for their correction occasionally proves fatal. In obstetrics anesthesia now constitutes a major cause of maternal death.[6, 7]

DETERMINANTS OF ANESTHETIC RISK

Analysis of deaths from anesthesia shows that five factors combine to make up the total anesthetic risk. The most obvious of these is the physical condition of the patient. Concurrent pulmonary or cardiovascular disease carry with them a well recognized increase in risk. So also do obesity, a full stomach, anemia, oligemic shock, and liver disease. The second factor, equally important, is the nature of the operation to be performed. In general, the risk is obviously greater during a pneumonectomy than it is during a herniorrhaphy.

A third factor is the skill and experience of the person giving the anesthetic. All anesthetists are not necessarily equally qualified to give all types of anesthesia. Any theoretical advantage of spinal anesthesia in a given case may be completely nullified if the anesthetist has little experience with this form of anesthesia. The fourth factor in determining anesthetic risk is the skill and training of the person performing the operation. Finally, the anesthetic risk is determined by the pharmacological properties of the agents employed. All agents carry with them an inherent risk. This risk may be decreased by skillful administration and by careful selection so that the anesthesia is made to fit the patient rather than vice versa, but this portion of the risk will probably never be completely eliminated.

In view of the multiplicity and complexity of the various factors which determine the anesthetic risk it is apparent that an accurate preoperative evaluation can be achieved only by those fully acquainted with all of these factors.

THE SOLUTION

There is no immediate solution to the problem of anesthetic risk which will result in the prompt elimination of all anesthetic deaths. The problem will have to be solved over a period of years by approaching it from three points of view.

The first is *education*. Education obviously must include training of anesthetists but it must extend well beyond this. It must involve recognition by the medical profession of the fact that anesthetic deaths constitute an important problem. Physicians must realize that anesthesia is not merely a benign though necessary accompaniment of operation but that statistically it represents a considerable portion of the total operative risk. Education must emphasize that the patient's safety is *always* regarded as the first objective in anesthesia. Such an approach will remove any temptation to assume a calculated anesthetic risk merely because it has been successfully assumed 200 times in the past. It should also eliminate any tendency to allow surgical convenience or the desires of the patient to dictate the form of anesthesia.

Education must also include honest and thoughtful re-evaluation of what constitutes a death associated with anesthesia and what causes these deaths. The majority of anesthetic deaths are not spectacular. The majority are not the result of explosions or of cardiac arrest. Many occur under circumstances which make it convenient to blame either the patient or an act of God, instead of properly ascribing the cause of death to the anesthesia. The emotional reactions to the words "anesthetic death" represent a major obstruction to obtaining information which can help define and solve the problem.

The second approach consists of *recruitment*. At the present time there are approximately 5,500 members of the American Society of Anesthesiologists and 5,500 members of the American Association of Nurse Anesthetists. Assuming that all of these are in active practice, there are then at the most 11,000 persons giving anesthesia who have been trained primarily for this purpose. This is a number inadequate to administer the 8,000,000 anesthetics given annually in this country. The extent of this problem is illustrated by a survey conducted in 1957 concerning anesthesia coverage in general hospitals of 100 beds or less throughout the country. Approximately 10 per cent of the anesthetics were administered by persons who had neither an R.N. nor an M.D. degree; 10 per cent were given by nurses with no anesthesia training; 30 per cent were given by general practitioners; 40 per cent by qualified nurse anesthetists; and 10 per cent by physicians devoting their full time to anesthesia.

The safest anesthesias are given by those who are intensively trained for the specific purpose of giving anesthesia. As long as the unskilled anesthetist con-

inues to give a significant proportion of the total
umber of anesthetics there are likely to be avoid-
ble deaths from anesthesia. It is estimated that a
ninimum of 25,000 qualified anesthetists (one per
,000 of population) is required in this country be-
ore such an ideal is attained, but until such a num-
er is reached the number of deaths associated with
nesthesia will remain higher than necessary. Re-
ruitment therefore represents one of the major
onsiderations in any solution of the problem.

The third approach concerns *research*. This
hould be aimed at a fuller understanding of the
harmacological and physiological effects of agents
lready in use and towards the development of
ewer and safer agents and technics. But the value
f research should not be over-emphasized. A solu-
ion to the problem may be attained by placing
qual emphasis on all three factors.

UMMARY

Deaths associated with anesthesia are discussed
nder two headings: (1) those in which anesthesia
is the sole cause of death, and (2) those in which
nesthesia is a contributing cause. The figure of
ne anesthetic death in 1600 anesthesias was found
pplicable to Connecticut. This brings the national
death rate for anesthesia to about 5,000 per year.
This problem has been very little appreciated.

The five factors comprising the total anesthetic risk are discussed. These factors are the physical condition of the patient, the nature of the operation, the training and qualifications of the anesthetist, the skill and training of the surgeon, and the pharmacologic properties of the anesthetic agents used. To solve the problem of anesthetic risk will require over a period of years education, recruitment, and research.

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Early Resection for Abscess of the Lung

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During the past twenty years the treatment of pulmonary infections with antibiotics has resulted in a change in the course, convalescence and complications of pulmonary abscess and pleural empyema.[6] The causes of lung abscess—bacterial pneumonia, comatose aspiration into the tracheobronchial tree, dental sepsis, previous chronic bronchial infections and bronchial block due to tumor have not changed.

Early treatment may be given at home[1] with or without adequate antibiotic therapy. Frequently the development of empyema is unsuspected until the patient develops dyspnea or rapidly declines with a pyopneumothorax. Also the infectious process in the lung parenchyma may be adequately treated but the necrotizing process,[7] especially with staphylococcus as the prime organism, may result in bronchopleural fistula and empyema in a patient who has few symptoms referable to the lung.[2] Fortunately the fusospirochetal putrid lung abscesses are rare now because of their ready response to antibiotic therapy. This discussion will be limited to adult patients with primary lung abscess and empyema as a result of perforating abscess.

TREATMENT

An early attempt to obtain proper cultures of the abscess or complicating empyema is the cornerstone of treatment. This entails early bronchoscopy and thoracentesis. The former may be all that is necessary in surgical treatment, the latter permits relief of lung compression and bacterial survey of any complicated infections. Since many cases of abscess of the lung[5] may be secondary to carcinoma, bronchoscopy should be utilized as an early diagnostic procedure.

Open drainage or closed thoracotomy converts the problem into a long term, multistage procedure but may, in a desperately ill patient, be lifesaving.[3] If the patient's cardiovascular and renal condition will tolerate surgery an early attempt should be made to excise the abscess, decorticate the remaining lung and currette the empyema pocket.[4]

Following operation, adequate drainage with daily intrapleural instillations and oral dosages of an antibiotic to which we know the organisms are susceptible should be pursued. Drainage should be maintained for five to seven days. No fluid should be allowed to accumulate after the drainage tubes are removed for fear of recurrence of the empyema.

CASE REPORTS:

1. Mr. W. J., age 67, was admitted to Norwalk Hospital on April 21, 1956. For two months prior to admission he had become fatigued on light work, dyspneic, and had lost ten pounds in weight. He had a cough productive of thick, whitish sputum. There was no hemoptysis. The physical examination was within normal limits except for numerous rales in the right upper lobe. X-ray of the chest revealed a cavity filled with fluid in the right upper lobe.

Course: On admission his temperature was 103° F. Treatment was started with injections of penicillin and within seven days his temperature was consistently below 100° F. On April 26, 1956, bronchoscopy was done with topical anesthesia and a right scalene node biopsy under local anesthesia. Culture from this bronchoscopy and microscopic examination of the biopsy were negative. The day following bronchoscopy, while on postural drainage, the patient expectorated 500 cc. of greyish pus. All cytology and cultures for acid fast bacilli were negative on several occasions. Each day subsequent to this bronchoscopy sputum volume reduced in amount and the temperature remained within normal limits. Immediate preoperative x-ray revealed a large, thin-walled cavity in the right upper lobe.

Operation: On May 2, 1956, the right upper lobe was excised and sent to the laboratory for frozen section. This revealed carcinoma in the bronchus blocking the right upper lobe. A radical right pneumonectomy with intrapericardial ligation of vessels was performed. In the early postoperative period the patient did well except for atrial fibrillation. However, on the 21st postoperative day he developed a bronchopleural fistula, rapidly went downhill and expired on the 54th postoperative day. No postmortem was obtained.

2. Mr. B. C., age 61, was admitted to Stamford Hospital on August 1, 1956 with a history of pain in the right chest which followed an upper respiratory infection of one week's duration. On admission his temperature was 104° and he was somewhat dyspneic.

Laboratory: The admission white blood count was 18,300, N. 87, L. 9, M. 4; hemoglobin 13.3 grams (84%), sedimentation rate 38 mm. per hour corrected. Routine urine was within normal limits. EKG normal. B.U.N. 22. Protein serum 6.7 grams. Cultures from bronchoscopic specimen on 8/17/56 revealed alpha streptococci and hemolytic staphlococci which were coagulase positive. The organisms were sensitive to Erythromycin and Chloromycetin.

Course: After beginning intramuscular penicillin, 1,200,000 units daily, the temperature dropped to below 100° F. but began to rise again on the fifth day; terramycin was not effective so on the 23rd day, after cultures were obtained, 500 mgs. of albamycin twice a day was given. On August 17, 1956, bronchoscopy was productive of a large volume of sputum; but in spite of continued treatment with an antibiotic known to be effective, a bronchopleural fistula developed.

Operation: On August 28, 1956 a thoracotomy was done and the right middle lobe and a portion of the anteromedial basal segment were excised. Frozen section revealed no tumor and the operation was completed after curretting the empyema cavity.

Patient was discharged on the 37th hospital day, ten days after his operation. Reports from the Veterans Administration Hospital in New York indicate that he is in good health at this time.

3. Mr. G. C., age 24, was admitted to Norwalk Hospital on March 1, 1957 complaining of severe pleuritic pain on the left side, chills, and cough productive of rusty sputum. He had always been in good health, this representing his first major illness. On physical examination, the positive findings were limited to the left chest where there were many rales in the left lower lobe and dullness to percussion to the fifth rib in the left mid-axillary line.

Laboratory: White blood count 24,680, P.86%, L. 8, Eo. 3, and M. 3. Hemoglobin 12.5 grams, (83%). Urine normal. EKG normal. Culture of pleural fluids on March 17, 1957, hemolytic staphlococcus aureus, sensitive to terramycin, albamycin and erythromycin.

Course: For three days after admission the patient was acutely ill and he was given intravenous terramycin and 100 units of ACTH daily. X-ray evidence of an accumulating empyema was noted on March 17th and 400 cc. of pus were removed by thoracentesis. At this time one ampule of tryptar was instilled into the empyema cavity. This was repeated every two days and by March 24 the patient was afebrile. He signed out of the hospital, subsequently was found to have a bronchopleural fistula and resection of the left lower lobe was performed at another institution. He made an uneventful recovery.

4. Mr. L. H., age 53, was admitted to Stamford Hospital on February 11, 1957, after he was found in a parked car by the local police. On admission he was comatose due to alcoholism and was unable to give a coherent history. However, after recovering from delirium tremens he stated that he had noted a shaking chill and pain in his left lower chest and a cough productive of rusty sputum the day his drinking bout began. In his past history he had had a subtotal gastrectomy for duodenal ulcer in September, 1956, and gangrene of the left foot in December, 1956 because of exposure. On physical examination he was moderately ill, thin, and with the exception of the residual disease in his left foot and wellhealed abdominal scar, all findings were limited to the left chest. There was dullness to percussion, loss of tactile fremitus and many rales heard over the left upper lobe.

Laboratory: On February 27, 1957 chest fluid was cultured for hemolytic staphlococcus aureus sensitive to albamycin, erythromycin and polymyxin. Investigation of sputum for acid fast bacilli was negative. EKG on 2/11/57 showed sinus tachycardia, premature ventricular contractions and low voltage of the ventricular complexes. Urine within normal limits. White blood count was 14,800, normal differential. Hemoglobin 10.2 grams.

Course: X-ray of February 21, 1957, ten days after admission, revealed an empyema which contained the organisms referred to above. Eight thoracenteses were performed and on March 22, 1957 a thoracotomy with drainage was done under local anesthesia with immediate improvement. On April 8, 1957 the left lower lobe and lingula of the left upper lobe and empyema pocket were excised. During the operation extreme ventricular tachycardia was noted on the cardioscope and the operation had to be terminated before the empyema pocket could be completely excised. On turning the patient on his back, he developed a cardiac arrest which responded to cardiac massage. An overwhelming infection in the chest resulted in death from hemorrhage on the 21st postoperative day.

5. Mr. W. B., age 57, was admitted for the first time to Norwalk Hospital on June 29, 1957. His chief complaint for one week prior to admission had been fever and a cough productive of brownish sputum. For ten weeks prior to this admission the patient had been treated for a bullous dermatitis herpetiformis and had received 5 mgm. of meticortin daily and achromycin daily. Whenever his medication was gradually decreased the dermatitis would recur. On admission, dullness to percussion and loss of tactile fremitus were the only positive physical findings except for the generalized scaly dermatitis.

Blood chemistry examinations, urine test and blood count were within normal limits. Smears for acid fast bacilli and skin tests for tuberculosis were negative. Culture of sputum revealed staphlococcus aureus sensitive to albamycin and erythromycin. Blood cultures and urine cultures were negative.

Course: After a week of therapy with albamycin, the volume of sputum was reduced. Postural drainage and alevaire therapy were continued. On July 26, 1957 bronchoscopy was done and specimens were again cultured and cytology studies were negative. Large volumes of pus were again expectorated on postural drainage. The patient left the hospital against advice on August 3, 1957, and continued to take erythromycin at home. The patient was readmitted on August 29, 1957, with a well developed empyema and bronchopleural fistula and because of his condition operation was advised.

Operation: On September 4, 1957 the basal segments of the left lower lobe and lingular segment of the left upper lobe were excised and the empyema cavity was curretted. The operation was carried out with large doses of cortisone in preparation, the dosages gradually being reduced. The patient made an uneventful recovery and was discharged on the 11th postoperative day and has now returned to work.

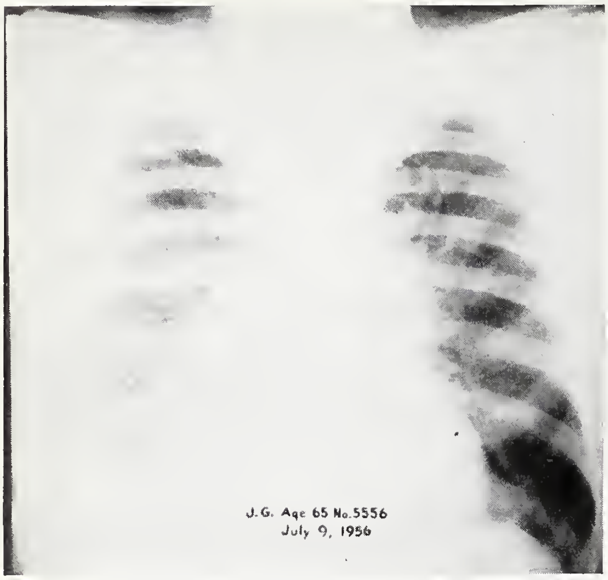

Figure 1
Case 7—July 9, 1956 on admission.

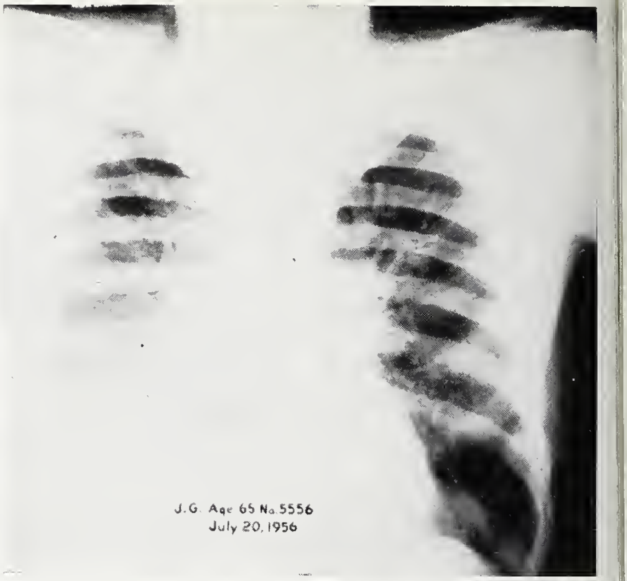

Figure 2
Case 7—July 20, 1956. Note fluid level.

6. Mrs. E. S., age 35, was admitted to Norwalk Hospital on July 25, 1957 with a chief complaint of fatigue, chest pain in the right upper chest and a cough productive of greenish sputum. In her past history she had had pneumonia at age 14, was a known treated epileptic since age 15, had had several abscessed teeth in the last five years, and was a known alcoholic. The patient stated that the symptoms began three months earlier with a chest cold and that recently she had had night sweats. Two months before admission her local doctor gave her two doses of penicillin but she had received no treatment since that time. Since the onset of the cough she had lost approximately ten pounds in weight. On physical examination the only positive finding was dullness to percussion over the right upper lobe.

Laboratory: Routine urinalysis negative. White blood count showed 13,500, P. 75, St. 6, L. 16, M. 3. Hemoglobin 11.6 grams (73%). Hematocrit 33. Culture of sputum: staphlococcus aureus hemolyticus; sensitive to tetracycline, albamycin and erythromycin.

Course: X-ray on admission revealed a large, thick walled cavity in the right upper lobe. The patient was afebrile and continued so. Large doses of penicillin were ineffective so achromycin was given. This, combined with postural drainage and alevaire, reduced the foul greenish sputum to less than one-half ounce per day. Because it was clear that the right upper lobe was nearly destroyed by the abscess, it was elected to do a resection. On September 5, 1957 bronchoscopy was performed and this was immediately followed by a right upper lobectomy. The abscess involved the entire upper lobe. The patient was discharged on the 11th postoperative day and has remained well.

7. Mr. J. G., age 65, was admitted to the Norwalk Hospital on July 9, 1956 complaining of a cold in his chest. About ten days prior to admission this man had noticed a cough and chest discomfort for which his family doctor had given him several intramuscular doses of penicillin. When signs of pneumonia and a friction rub were heard in the right lower chest, the patient was admitted to the hospital. In his past history he was supposed to have had bronchiectasis in the left lower lobe which was diagnosed by a lipiodol study in 1953. Physical examination was negative except for dullness over the right lower lobe.

Laboratory: EKG on July 13, 1956, within normal limits. Blood count showed white blood cells 16,100 P.83, St.4, L.8. Hemoglobin 10.8 grams (68%). B.U.N. 13. Blood sugar 121. Urine negative. Standard agglutinations negative. Blood culture negative. Cytology of sputum negative. Acid fast bacilli not found. Sputum culture showed usual flora.

On admission the patient's temperature was 104 and he was acutely ill. After eight days of intramuscular penicillin in which the temperature response was minimal, he was given albamycin, 500 mgm. twice a day, with immediate improvement. Because he did not continue to improve, on July 27, 1956 bronchoscopy was done which was negative for tumor. After this procedure, postural drainage did not produce further sputum and he continued to run a normal temperature. On August 1, 1956 the temperature was found to be 102 and x-ray revealed a bronchopleural fistula.

Operation: On August 6, 1956 a right lower lobectomy and currettment of the empyema pocket was done. On the ninth postoperative day the patient developed a bronchopleural fistula which responded to treatment with an anterior catheter drainage. Culture of the chest fluid revealed a virulent form of pyocyaneous in pure culture which was sensitive to polymyxin and terramycin. The patient was then treated with daily instillations of polymyxin and made an uneventful recovery to be discharged on the 18th postoperative day. He has since returned to work. (See figures 1, 2, 3, 4.)

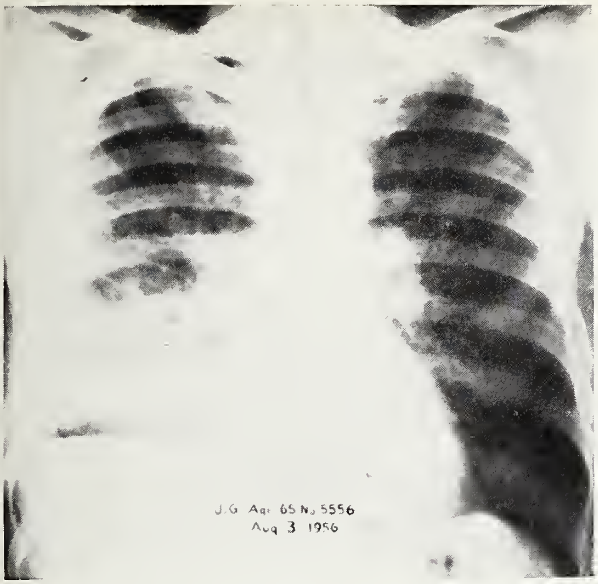

FIGURE 3
Case 7—Aug. 3, 1956. Broncho-pleural fistula has developed.

TABLE I. ETIOLOGY OF LUNG ABSCESS

1. Aspiration
2. Neoplasm
3. Pneumonia
4. Trauma
5. Septic emboli
6. Chronic bronchiectasis

TABLE II. COMPLICATIONS OF LUNG ABSCESS

1. Bronchogenic spread
2. Rupture
   a. Empyema
   b. Broncho-pleural fistula
   c. Pyopneumothorax
3. Hemorrhage—bronchial arteries
4. Metastatic abscess—brain, etc.
5. Chronic lung abscess
6. Residual bronchiectasis
7. Crippled lung
   a. Circulatory
   b. Ventilatory

DISCUSSION

The effective treatment of pulmonary abscess and pleural empyema combines good medical and surgical management. Many cases of pulmonary abscess will respond dramatically to a suitable antibiotic, postural drainage, bronchoscopy and supportive therapy. When in the course of the disease there is clinical or radiographic evidence of continuing necrosis and development of bronchopleural fistula we believe an early attempt to resect the infected tissue should be made.

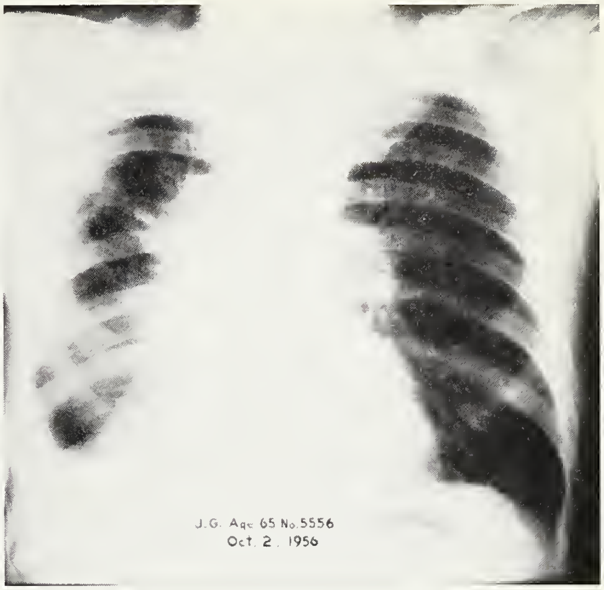

FIGURE 4
Case 7—Oct. 2, 1956. Post-operative result.

Because of the greater actual incidence of bronchogenic carcinoma in association with a blocked bronchus and a resultant abscess, we believe that bronchoscopy at the earliest possible moment is indicated. The reasons for this are threefold: (1) to rule out, if possible, a carcinoma, (2) to obtain suitable cultures and specimens for cytological study, and (3) to aspirate the contents of the pulmonary abscess.

No operation of the magnitude of segmental or lobar excision should be attempted until adequate blood volume has been obtained by transfusions. Also a suitable antibiotic proven to be effective is of great value. Adequate pulmonary and cardiac reserve are essential.

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Management of Insomnia and Restlessness

A Pharmacologic Viewpoint

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The value of sound sleep to the physiologic and mental health of an individual cannot be overestimated. It was given the divine seal of approval in the words of the psalmist when he declared, "For He giveth His beloved sleep."

Through the eleven decades which have passed since Claude Bernard instituted the dynamic, critical approach to modern physiology, man has failed to unravel the mystery of sleep. To be sure, however, advances have been made and certain of these will be considered.

PHYSIOLOGIC CONSIDERATIONS OF SLEEP

Natural sleep is characterized by an almost, although not complete, absence of movement, and what little remains is usually stereotyped and not dependent on critical cortical activity. Grimaces are preserved and may be evoked by lightly stimulating the face of the sleeper. Righting and scratch reflexes are absent and tendon reflexes diminish or disappear, depending upon the depth of sleep. Muscular relaxation, although never complete, is an important concomitant of natural sleep. There occurs a progressive diminution of action potentials.

The character of the electroencephalogram depends on the depth of sleep. In general, the alpha waves (9 to 11 per second) and beta waves (faster activity) gradually diminish and disappear with the more frequent occurrence of irregular, slow, large voltage delta waves.

The increase in CO_2 in the blood and alveoli and the change in blood pH indicate a lowered irritability of the respiratory center. The heart rate slows considerably and the blood pressure falls, but the slowest pulse is found during the second half of the night and the lowest pressure during the first half.

That sleep is not solely dependent upon the cortex is apparent from the observation that decorticate animals show alternating periods of sleep and wakefulness. Furthermore, there is strong evidence for the participation of the hypothalamus in the regulation of sleep and wakefulness. Mauthner (1890), during the course of an epidemic of sleeping sickness, definitely related the condition to inflammatory lesions in the periventricular gray matter of the brain.

Some investigators believe that sleep results from a depression of activity of the hypothalamus. They maintain that the centers are concerned with keeping man awake. Other students of the subject hold that sleep results from excitation of these areas. Several chemical theories of sleep have been proposed postulating the production during wakefulness of various "fatigue substances" which depress the activity of the cortex. The evidence offered in support of such "humoral" theories is far from convincing. Pavlov concluded, as a result of studies on the behavior of dogs during experiments on conditioned reflex activity, that sleep is a result of a spread of internal inhibition over the cortex with the eventual involvement of subcortical areas. Kleitman (1933), on the other hand, proposed an "evolutionary" theory of sleep based on the idea that the state of wakefulness is maintained through activity of the hypothalamus. His theory attempts to explain the development of a sleep-wakefulness rhythm from a purely subcortical or primitive one to the more advanced type exhibited by adult man.

The work of Magoun *et al.* (1951) has shown that any consideration of the physiology of sleep must take into account the ascending reticular system. These nerve cells, which lie in the brain stem interspersed between the main sensory and motor pathways, are concerned with the arousal from sleep. If the reticular formation is stimulated while an animal shows a sleep pattern electroencephalogram, the pattern changes to the dys-synchrony of the waking state. Destruction of this area produces a persistent stuporous state from which strong sensory stimuli will cause only a brief arousal. However, if the main sensory pathways are destroyed at the upper level of the brain stem, peripheral stimuli will still arouse a sleeping animal with an intact reticular formation. This work definitely establishes the importance of the role played by the ascending reticular system in the physiologic consideration of sleep.

From the Department of Pharmacology, University of Maryland School of Medicine.

OLDER HYPNOTIC DRUGS

The first synthetic hypnotic drug, chloral hydrate, was synthesized by Liebig in 1832. Its hypnotic properties, however, were not discovered until 1869. After nine decades of use and recent keen competition, cogent evidence is not available to show that chloral hydrate suffers by comparison. Paraldehyde, extensively used before the turn of the century, has declined in use owing to its disagreeable odor and the gastric irritation which it elicits. The sulphone derivatives, sulfonal and trional, were capriciously absorbed and hence lacked dependability. In addition, their use was occasionally attended by the production of blood dyscrasias. These drugs were displaced by the synthesis of the barbituric acid derivatives at the turn of the century.

THE BARBITURATES

Baeyer named the malonylurea nucleus *barbituric acid* because he believed it to be a "key" to a series of compounds. He used a portion of the German word "Schüsselbart", meaning the bit or beard of a key. The barbiturates as hypnotics are one of the most generally-used classes of drugs. This is evidenced by the fact that about 350 tons are used each year and the daily consumption of phenobarbital is estimated at one ton.

All of the medicinally-employed barbiturates may be considered different forms of the same substance. Those compounds which contain long side chains, such as Seconal and Nembutal, are rapidly acting and their hypnosis is of short duration. Those which contain short chains of carbon atoms such as the ethyl group, and closed chains such as the phenyl group, are slow acting barbiturates, as illustrated by phenobarbital. They are refractory, for the most part, to oxidative processes and are excreted by the kidneys in urine. Their sojourn in the body tissues is longer and hence their sedative action extends over longer time periods.

HABITUATION AND ADDICTION TO THE BARBITURATES

True addiction rests upon the tripod of tolerance, habituation, and physical dependence. Tolerance is the phenomenon which occurs upon the repetitious administration of a drug when the therapeutic effect is lost and the dosage schedule must be increased to achieve the previous desired action. Tolerance can be readily acquired to the barbiturates, especially when employed as hypnotics. The tolerance is a so-called cross-tolerance and prevails with all of the members of the barbituric acid series of hypnotics. Habituation is mainly a psychic phenomenon. It is an adaption to the repetitious dose of the drug. It is a mental conditioning to the drug effect, which is essentially a psychic dependence upon the drug.

Barbiturates may readily evoke habituation. Physical dependence is a distortion of the normal physiologic processes of an individual from the prolonged administration of addicting drugs such as morphine. This is manifested by the necessity for the presence of an adequate amount of such a drug in the body for the maintenance of physiologic equilibrium. Barbiturates, when employed in their usual dosage schedule, do not produce physical dependence. When, however, barbiturates are administered in massive doses repeatedly, and suddenly withdrawn, true withdrawal symptoms resembling grand mal seizures are elicited, indicative of physical dependence.

Owing to the fact that many suicides have resulted from overdoses of barbiturates and since their ability to produce addiction has not been clearly understood, a new series of nonbarbiturate hypnotics has been made available.

NEWER NONBARBITURIC ACID HYPNOTICS

Within the past five years there have been introduced into medical practice at least five new nonbarbituric acid hypnotics. These compounds are Valmid, Doriden, Noludar, Placidyl, and Dormison. Each has captured the imagination of a segment of the medical profession and they are in general use as hypnotics.

Each of the new hypnotics appears to be less dependable than the barbiturates, and accompanied by a greater incidence of side effects. Acute intoxication appears possible with each of these drugs, requiring, however, larger dosage to produce the acute depression syndrome than with the currently-used barbiturates. Their effective hypnotic doses, however, are larger than those of the barbiturates. It is true that these compounds offer the physician an alternate sedative to patients who become barbiturate-tolerant or who are adversely affected by the barbiturates.

It does appear, however, that the barbiturates remain the drugs of choice in the management of insomnia. The data to date provide no cogent evidence for believing that any of the newer hypnotics differ qualitatively from the barbiturates in their desirable or undesirable actions. Indeed, these newer hypnotics have a formidable competitor in the currently-used barbiturates.

CAUSES OF RESTLESSNESS

Restlessness may well be the result of organic disease, such as hyperthyroidism, menopause, male climacteric, and hypertension. It often heralds the origin of serious organic involvements such as carcinoma of lungs or other organs. These possible organic facets must be considered when an otherwise poised and well integrated person presents himself with the problem of restlessness.

Psychologically, restlessness occurs frequently in youth, when the age-old struggle between youth and the social order established by the older generation occurs. It again often presents itself in middle life when a gap between ambition and achievement becomes manifest. And, furthermore, restlessness is a frequent result of "the pruning knife of time."

A PSYCHOLOGICAL APPROACH

The patient must be made to realize that the zest for life is not in the goal but in the race, not in the achievement but in the effort. One should not neglect, especially for the older patient, a reaffirmation of the Christian hope for a better future life somewhere beyond the azure of the morning cloud. Creative work proves his adequacy, magnifies his ego, and the Christian hope provides the necessary solace of a future.

A PHARMACOLOGIC APPROACH

Such simple psychotherapy has serious limitations in many patients. For these, drug therapy is necessary to combat restlessness. The time-honored drug for daytime sedation is phenobarbital. It has served dependably and well for a quarter of a century. Not only is it useful in relieving restlessness and tension but it is also valuable in treating the psychic components of such diseases as hypertension and peptic ulcer. The principal disadvantage of phenobarbital therapy is the drowsiness which it evokes in a large segment of the patients receiving it.

Within the past five years the physician's armamentarium has been augmented by the discovery of the tranquilizing or ataractic drugs. In the main these drugs produce calm, imperturbability, and tranquility without concomitant sedation. From the avalanche of tranquilizers which have descended recently upon the physician, it appears that the one most suitable for the control of restlessness and the emotional overhang of many organic diseases is meprobamate.

MEPROBAMATE (MILTOWN, EQUANIL)

Meprobamate, is chemically related to mephenesin. The action of mephenesin is short owing to the rapid oxidation of the primary hydroxyl group in the molecule. In an effort to block the oxidation and thus prolong action the hydroxyl group was converted to a carbamate. Of the many compounds synthesized by Ludwig and Piech (1950) and related to mephenesin, meprobamate proved most promising. It is a white crystalline powder eliciting a characteristic bitter taste. It is sparingly soluble in water.

The action of meprobamate in psychoneuroses and anxiety states may be due to its capacity to block selectively interneuronal circuits (thalamocortical and corticothalmic) and to the reduction of exaggerated reflexes to the usual magnitude (Berger, 1954, *et seq.*). The relaxation of skeletal muscle is an additional component of the action of meprobamate; this it shares with mephenesin.

Meprobamate appears to have advantage over mephenesin in that it does not evoke nausea or vomiting. Berger (1954) suggests that the long latent period of action of meprobamate is likely due to its biotransformation in the tissues prior to its effective action. Meprobamate is conjugated in the body with glucuronic acid and excreted in this form.

CLINICAL USE OF MEPROBAMATE

There is perhaps no other drug introduced in recent years which has had such a broad spectrum of clinical application as has meprobamate. As a tranquilizer with a minimal of side effects, meprobamate has met a clinical need in anxiety states and many organic diseases with a tension component. The principle underlying their use is sound, namely, that an agent that will relax skeletal musculature, reduce body movement, and induce imperturbability, will diminish tension and often evoke sleep. Drowsiness appears to be the only consistent untoward side effect elicited by meprobamate. This may be controlled by dosage reduction or the simultaneous use of dexedrine.

RESTLESS PATIENT AND SEDATIVE AND TRANQUILIZING DRUGS

It is doubtful whether or not the organic concept of mental problems modifiable by drugs can be accepted in its entirety to the exclusion of the psychodynamics involved. We know very little about the cause responsible for persistent restlessness. One questions the wisdom of drug-induced tranquilization in many individuals where drive and ambition, coupled with its associated tension, are the dynamic forces of their very existence. Their peace of mind is not tranquility, but achievement. The physician has now in his hands a new set of tools, the ataractic or tranquilizing drugs. He must not use them without discrimination.

The Connecticut Society of American Board Surgeons

History of Its Inception

Courtney C. Bishop, m.d.
New Haven

The Connecticut Society of American Board Surgeons was conceived in the mind of the late Dr. Samuel Clark Harvey during the latter years of the decade preceding World War II and was fashioned ultimately into a reality on September 23, 1948 in Hartford. The story of the creation of the Society during that period of approximately ten years is of some historical interest and constitutes the purpose of this report.

Education of surgeons in this country was first formalized by Dr. William Stewart Halsted at the Johns Hopkins Hospital during the latter years of the nineteenth century in the pattern known then, as now, as the Residency Training Program. Based on the concept of a graduated increase on the part of the house officer of personal responsibility for the overall care, including operative techniques, of the surgical patient, the program depended for its success upon continuing supervision by a senior staff devoted to the primary objective of education; the program achieved its ultimate effectiveness in the final year when the trainee served as Resident Surgeon with complete responsibility for the conduct of all phases of the ward surgical service. By the early 1920's the validity of this approach was demonstrated by the development of teaching services in a limited number of other schools under the guidance of the first generation of Halsted graduates. During the following fifteen years, additional programs in other centers began to appear, some conceived with forthright acceptance of the principals already established, while others to varying degree were lacking in educational perspective. Hesitancy on the part of many to abandon the older apprentice systems, differences in interpretation of the concept that the training of a surgeon was a continuing educational process, the lack of coordinated effort on a national scale in determining what constituted proper qualifications for the surgeon as a specialist and an increasing number of young men seeking advanced training in surgery resulted in a thoroughly confused situation in which many hospitals offered appointments with the title of resident in surgery and in which no method existed for standardization or for comparison of the educational content of these many varying programs.

To meet this problem and in an effort to create a mechanism for evaluating the adequacy of existing and proposed postgraduate educational programs for the training of surgeons and, incidentally, to provide for a means of recognizing those surgeons who had successfully completed such training, The American Board of Surgery was organized on January 9, 1937.

Doctor Harvey, then Carmalt Professor of Surgery in the Yale School of Medicine, himself a second generation graduate of the Halsted discipline and in his own department dedicated to the education of future surgeons, found merit in this new organization and became enthusiastic in support of its program. Elected to membership in The American Board of Surgery for a six year term in 1943, he served as Vice-Chairman from 1947 to 1949. Believing that in The Board lay the mechanism for sound progress in the education of the surgeon, he likewise felt that surgeons certified by The Board represented the individuals who by virtue of their education should constitute the group best suited to influence the surgical thinking and practice in their respective communities. In addition, he also felt strongly that there was much mutual benefit to be derived from an opportunity for surgeons of comparable background and training to associate themselves together in order that they might better know their fellows as men, that they might exchange their ideas and that collectively their influence would be immeasurably more effective. Always interested in the young man, anxious to provide a forum in which the young man might freely express his ideas and somewhat impatient with the tendency of older minds to dominate thinking, in some instances on the basis of seniority only, Doctor Harvey saw in the young, well trained and well educated diplomats of The American Board in Connecticut a nucleus for an effective organization of those men who ultimately should be the professional leaders of the State.

In his usual quiet way, he began to suggest these ideas to a few persons shortly after the certification

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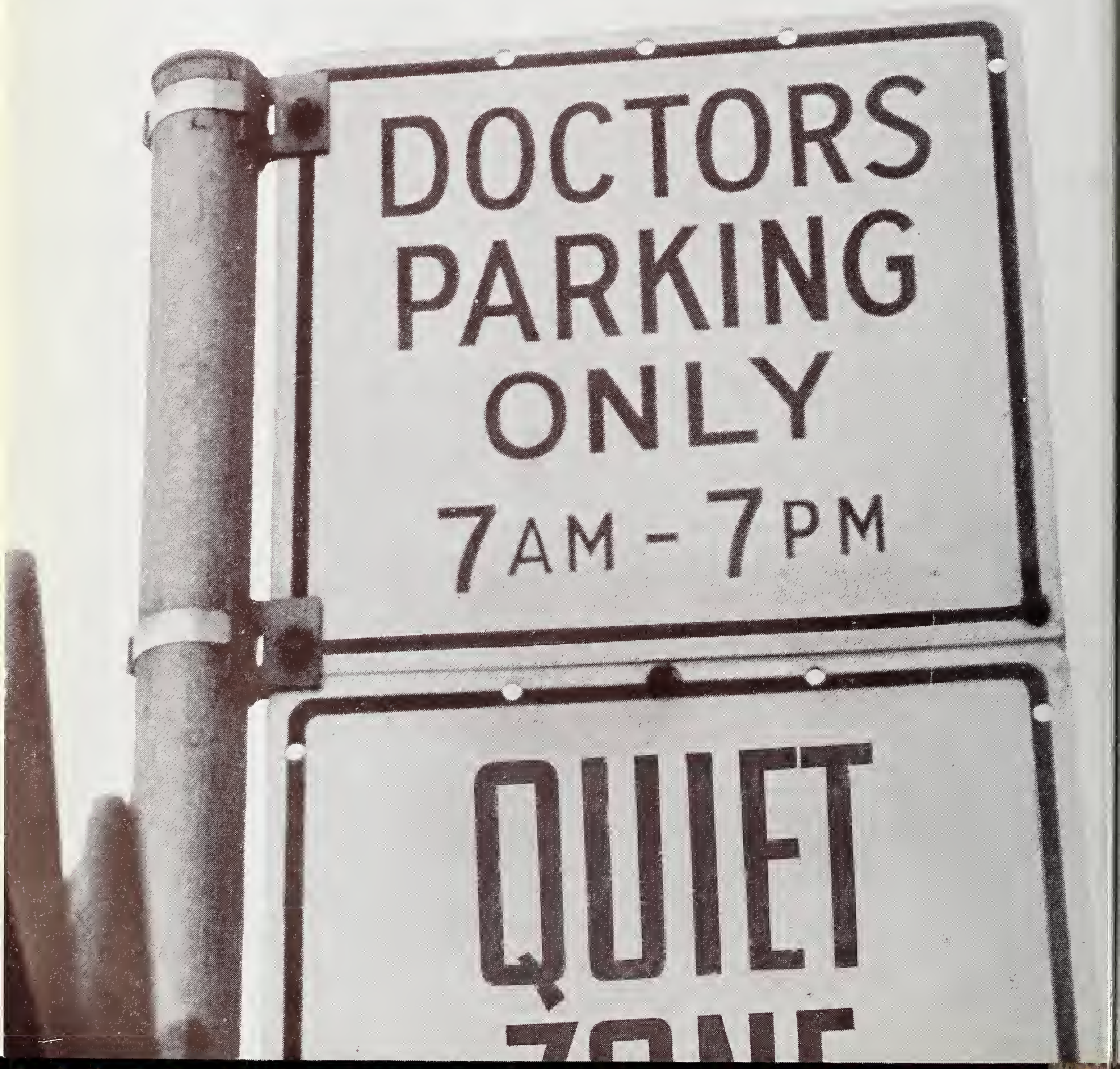

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of the first two groups of diplomats of the new Board. Lack of enthusiastic acceptance of the idea because of some differences of opinion and the increasing threat of United States participation in the European War led to delays and with the outbreak of actual hostilities in December 1941, planning for the proposed association was postponed.

Late in 1946, Doctor Harvey renewed actively his support of the idea and during the early months of 1947 a group consisting of Doctor Harvey, the late Dr. Donald B. Wells of Hartford, Dr. Maxon H. Eddy of Bridgeport, Dr. Edward J. Ottenheimer of Willimantic, Dr. Francis B. Sutherland of Torrington and the essayist met together on several occasions to formulate specific proposals. By November 1947, the members of this group were agreed that the idea of forming an organization of the surgeons in Connecticut who had been certified by The American Board of Surgery held promise of success, that the objectives of such an organization should be to provide firstly an opportunity for extended social friendship among its members and secondly for the improvement of surgery in Connecticut; it was the consensus that the finalized development of the plan should rest with a larger group. Accordingly, upon invitation, a group consisting of L. N. Claiborn, C. H. Cole, M. H. Eddy, W. A. Geer, S. C. Harvey, E. S. Lampson, G. E. Lindskog, J. A. McCreery, P. G. McLellan, D. T. Monahan, J. B. Ogilvie, E. J. Ottenheimer, A. W. Oughterson, S. S. Quarrier, B. R. Reiter, H. B. Shumacker, Jr., W. A. Standish, F. A. Sutherland, D. B. Wells and the author met for dinner at Mory's, in New Haven, on December 11, 1947 to consider these proposals.

Doctor Wells opened the meeting with a discussion of the attempt to establish a Surgical Section of the Connecticut State Medical Society and the eventual collapse of that idea because of the belief that to be thoroughly effective, membership should be limited to persons qualified as specialists in Surgery but as a section of the State Society there could be no limitation of membership. The discussion was extended to the proposal at hand and it was agreed enthusiastically that the opportunity for a Surgical Society existed in Connecticut, that its membership should be limited to those certified by The American Board and that its purposes should be social as well as scientific. Edward J. Ottenheimer was elected Chairman of the group and an Executive Committee of six persons were instructed to prepare a draft of a Constitution and By-Laws for the proposed society. The same group met again in New Haven on April 29, 1948 to receive the proposed Articles of Incorporation and By-Laws. It was the opinion of the meeting that the name of the organization should indicate its objective and therefore voted that the name be The Connecticut Society of American Board Surgeons and the Articles of Incorporation were so worded to indicate this opinion; with similar minor alterations the draft of the By-Laws was likewise approved. The Executive Committee was instructed to proceed with the steps necessary to incorporate the Society formally under the laws of Connecticut and to plan the first meeting of the Society.

The Articles of Incorporation, signed by M. H. Eddy, S. C. Harvey, E. J. Ottenheimer, A. W. Oughterson, F. A. Sutherland, D. B. Wells and this essayist were submitted to and approved by the Secretary of State at Hartford, Connecticut on September 13, 1948. These articles provided that the objectives of the corporation were:

"a. To bring into one organization the surgeons in the State of Connecticut who have been certified by The American Board of Surgery, so that by frequent meetings and full and frank interchange of views, cooperation and coordination can be attained in the continuing of the surgeon.

b. To provide an opportunity for these surgeons to become better acquainted.

c. To exercise a guiding influence on the development of surgery for the benefit of the people of Connecticut." The requirements for membership as provided for in the By--Laws were simply that a candidate be certified by the Board and maintain his principal office in the State of Connecticut or if retired, that he be a resident of the state. A further provision required that the officers of the Society be elected from among the Active, rather than Senior members of the Society; an active member was defined as one who had not yet attained his fifty-fifth birthday.

The organization meeting of the Society was held in the Hunt Memorial Building in Hartford, on Thursday afternoon, September 23, 1948. The temporary chairman, Dr. Edward J. Ottenheimer called the meeting to order at 4:50 P.M. with 49 of the 76 eligible surgeons present; eleven others joined the meeting before it was concluded. The Articles of Incorporation and the By-Laws were approved and accepted, Doctor Ottenheimer of Willimantic was elected President and Dr. Ashley W. Oughterson of New Haven was voted President-Elect. Following the business meeting, the newly organized Society adjourned to the Hartford Club for dinner and an address by Dr. Allen O. Whipple who traced the development of William Stewart Halsted as a surgeon, the establishment of the full time program at the Johns Hopkins Hospital, the evolution of the resident training system and the founding of The American Board of Surgery.

So came to fruition one of Samuel C. Harvey's dreams; born in his mind and nurtured by a small group of his students, friends and colleagues, it was

Samuel Clark Harvey, M.D.

Courtesy of Deane Keller,
Yale University Art Gallery

lifted into existence by the surgeons of Connecticut who were certified by The American Board of Surgery. In its ten years of activity it has grown from an initial membership of 76 to a present total of 185, has been served by a distinguished succession of officers and has established itself, as its sponsor had dared to believe, as an effective instrument in surgery in Connecticut. One remaining thought clearly recognized in the minds of its founders though not expressed in the written record was the hope that this new Society, the first of its kind in this country, might serve ultimately as an inspiration for the creation of other similar groups has found partial realization in the subsequent organization of comparable Societies in Internal Medicine and in Obstetrics and Gynecology in this state.

SAMUEL CLARK HARVEY, M.D.
1886-1953

Eugene Fitzpatrick, m.d.
New Haven

The idea of origin and the concepts of the present Connecticut Society of American Board Surgeons were cradled in the mind of this astute surgical scholar.

Born on a farm at Washington, Connecticut, on February 12, 1886, Doctor Harvey received his secondary education at Woodbury High School and Mount Hermon School. Graduating from Yale College in 1907, he entered Yale Medical School and graduated cum laude in 1911, distinguishing his academic record with the Keese Prize for the most meritorious thesis, several scientific papers and as student editor of the Yale Medical Journal. Two years of pathology with Professor William G. MacCallum at the College of Physicians and Surgeons in New York City followed and culminated in the highly sought after appointment with Doctor Harvey Cushing at Peter Bent Brigham Hospital in Boston for three more years. Throughout his postgraduate training this modest, shyly reserved man of quiet attainment maintained an active interest in research and among his several interests was absorbable fibrin paper as a hemostatic agent, modifications of which we find valuable in practice today

In 1917, called to the service of his country over seas, he became Chief of Surgery at Mobile Hospita No. 6, and the measure of the man can be sense in a quote from the enlisted men's "citation" o Doctor Harvey: "There are five things that Sam i never without: a cigar or a pipe, a book, a desire t stay longer in bed, wonderful good humor, an clear, straight thinking. This officer has settled mor problems by quiet reflection than by the experimental method of trying them out, and there i much to say in favor of this method . . . He ha many other claims to which we cannot do justice but besides being a most all-around surgeon, he i a walking encyclopedia of all sorts."

Following World War I he was Resident Surgeon at New Haven Hospital and rapidly rose in academic stature at Yale to become William H. Carmalt Professor of Surgery and Chairman of the Department which he held with distinction for his alma mater and himself from 1924 to 1947. The tribute of his surgical residents in presenting Deane Kellers' portrait of Doctor Harvey to Yale University, which now hangs in the Sterling Hall of Medicine, Yale Medical School, is testimony of the high regard and devotion which they held for their "chief" who was never failing in understanding and encouragement.

Active in teaching and research, the intellectual force of the man was carried into important civic posts and medical societies, many of which he served as President. He was a founder of the American Board of Surgery, a President of the American Surgical Association, a President of the State Medical Society, a member of the Board of Governors of the American College of Surgeons and he served as editor of many leading surgical journals.

On the afternoon of August 22, 1953, Doctor Harvey departed from us, surrounded by books he long treasured and actively engaged at his desk in the Yale Historical Library preparing a presentation on his favorite research endeavor, "Wound Healing" for the International Society of Surgeons at Lisbon. Mankind has been much enriched by the mind and art of Sam Harvey. We should feel proud that our Society has been a part of his life which was one of uncommon culture, integrity and refinement.

Clinico-Pathological Conferences In Connecticut Hospitals

From the Bridgeport Hospital

Protocol

THIS 55-year-old white, married woman was admitted with complaints of shortness of breath nd chest pain. About six weeks before admission he first noted dyspnea. This was present only after xertion, but increased in severity over a period of eeks until she was scarcely able to climb the stairs ecause of shortness of breath. She had no difficulty n sleeping flat in bed, but had gradually increasing welling of ankles during this time and her ab- omen seemed to be increasing in size. Her appe- te was good, and bowel function was normal. She ad not lost weight. There were no neurological r urinary symptoms. She had no pain until 48 ours before admission when she experienced sud- en severe anterior chest pain and epigastric pain, hich was stabbing, unremitting and without radi- ion, continuing for several hours until relieved by njection. She was then admitted to the hospital.

Past History revealed "colitis" for past ten years onsisting of two to three soft stools a day. She had een under constant treatment for this condition. he had previous bouts of right flank pain and wo years before admission diagnosis of ptosis of ght kidney was made, but no definitive therapy as undertaken. Seven months before she had noted change in bowel habits and investigation revealed carcinoma of the splenic flexure which was re- oved surgically. Her recovery was uneventful. umerous physical examinations during the past wo years revealed no other physical findings. Blood ressure always 120/80.

Physical Examination: Patient was a well-devel- oped, well-nourished, middle-aged woman who com- lained occasionally of chest pain. She was restless, hort of breath and irritable. Blood pressure 100/60, ulse 120, respirations 24. No peripheral adenopa- hy. Heart seemed slightly enlarged to percussion. here was a soft blowing systolic murmur to the ft of sternum in 4th interspace. No diastolic mur- ur. One note indicated that a cardiac friction rub as heard, but other observers did not hear this. he lung fields were clear to percussion and auscul- tion. Her abdomen had a well-healed, left rectus ar and seemed somewhat full, but there were no masses or organs felt. Shifting dullness was absent. There was slight pitting edema of ankles. Neurological exam was negative. Stat EKG was normal.

A few hours after admission blood pressure became 80/65 and temperature rose to 101.5°. She demonstrated increasing shortness of breath and cyanosis. She was given oxygen, digitalis and diuretics with rapid relief of symptoms although it was noted that she was coughing blood stained mucus and cyanosis did not completely disappear. Chest x-ray on second day reported only "resolving diaphragmatic pleurisy." Repeat x-ray two days later reported clearing of pleurisy and tenting of the right diaphragm. The heart and lung shadows were not commented on.

One week after admission patient appeared improved and sat up in bed without discomfort. However, the systolic murmur had become much louder and could be heard without a stethoscope. The murmur was variable and at times seemed to fill entire cardiac cycle and covered the entire precordium. Her respirations continued 30-35 per minute although lung fields were clear and diuresis was good with loss of all edema.

Two weeks after admission she had sudden and dramatic recurrence of chest pain. The pain was now substernal and radiated outward to lateral chest and back. Dicumerol was started. The pain was controlled with morphine. The lung fields were again reported normal to percussion and auscultation. From there on, her condition gradually deteriorated. Dyspnea became severe and cyanosis intractable in spite of oxygen. She vomited frequently and took no food. Temperature spiked to 101-2° daily. Repeat EKG showed only sinus tachycardia. Massive doses of penicillin seemed ineffectual. The patient lingered for two weeks and terminally developed jaundice. She expired after seven weeks' hospitalization.

Laboratory: Numerous counts done on blood can be summarized as follows: RBC 4.6-4.0 million, Hgb. 10.6-12.4 gms., WBC 9.4 thousand. After second episode of chest pain, WBC increased to 22.8 thousand and terminally was 12.8 thousand. The Differential was variable, but always normal. Sed rate varied from 19-27. Urine: 1.016-1.020 Sp. Gr.; rare epithelial cells. NPN—35 mgm.%. Icteric Index 22 terminally.

Discussion

Dr. Allen F. Delevett[1]—May we see the chest x-rays?

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[1] Senior Attending Physician, Bridgeport Hospital.

Radiologist—These films are four days apart and a portable chest taken six days later. In each film there is an area of increased density at the left base probably representing fluid. The bronchial and vascular markings are slightly increased and there is no appreciable difference between the two films. The heart is normal in size. The aortic knob may be slightly prominent.

Dr. Delevett—After reading this case, I considered three possible diagnoses. The first of these was arteriosclerotic heart disease in a lady who developed left and right sided cardiac failure following coronary occlusion and myocardial infarction. The EKG is of little value. There is no evidence of increase in size of either ventricle and no conduction defect. Also, against the diagnosis of infarction and congestive heart failure is the lack of orthopnea, if we can rely on the patient's history. I think a person who develops severe dyspnea on the basis of cardiac failure will usually develop orthopnea as well as physical signs of pulmonary congestion and x-ray evidence of hypervascularization in the lungs. None of these are present. The only explanation of the lower lobe lesion with this diagnosis would be either fluid or pulmonary infarct. The EKG does not support this diagnosis since we should expect more changes. I am not going to make a diagnosis of arteriosclerotic heart disease for the above reasons.

The second diagnosis that must be considered is embolic obstruction of the pulmonary artery tree. This could be caused by thrombotic emboli or tumor emboli. Both surgery and carcinoma increase the incidence of peripheral phlebothrombosis with subsequent emboli to the pulmonary artery. This would produce diminishing pulmonary arterial blood flow causing increasing dyspnea. Multiple small emboli over a period of time would give pulmonary infarction, pleurisy and increasing right-sided failure and a clinical picture similar to this.

Embolization of a silent type without infarction and normal chest x-ray has been reported. Perhaps one thing against this diagnosis is the rapid progress of the dyspnea. If she had multiple small emboli from the time of surgery seven months before, it would take longer to produce chronic dyspnea. With larger emboli, chest pain would have been a prominent feature and infarction and right ventricular enlargement more likely. The pulmonary outflow tract and the arteries do not appear very prominent in these x-rays. The pulmonary shadow at the left base appears to become more prominent in the later film. I would expect an infarct to show some evidence of clearing in this time. Finally, the lack of right-sided heart failure is against thi diagnosis.

The third possibility seems to be the most likel one. In preparing this case I looked up the significance of a Grade 6 heart murmur. I read of on case of a patient with Grade 6 murmur with pulmonary heart disease secondary to thrombotic emboli. This person developed pulmonary heart diseas from extension of a carcinoma into the pulmonar circulation and lungs. This case and others similar all had typical findings of a linear type of pulmonary change with interlacing small nodules du to subpleural lymphatic involvement of the lungs Our case does not demonstrate this.

I am left with a rather unusual but more reasonable diagnosis: metastatic carcinoma of the heart The carcinoma may have spread via the inferio vena cava to the right auricle with fragment o tumor and clot producing pulmonary emboli. Th lung shadow would then prove to be a metastati lesion. The loud murmur is a result of change in size of the auricle due to occupation by a tumor mass or involvement of the tricuspid or pulmonary valves. Tumor vegetations have been described on the pulmonary valve sometimes producing a fistul between the two chambers. So, my diagnosis i metastatic carcinoma of the heart involving th right auricle.

Dr. Yasser[1]—The fact that there was no evidenc of superior vena caval obstruction would lead m to place the metastatic growth in the right ventricle or pulmonary valve and main pulmonary artery. This would give the picture of cyanosis an dyspnea with the lack of pulmonary findings. How would you explain the chest pain?

Dr. Delevett—On the basis of pulmonary infarct although in my experience it is unusual to have radiation of the pain to the back.

Clinical Diagnosis

Metastatic carcinoma.

Dr. Allen F. Delevett's Diagnoses

Metastatic carcinoma of heart involving righ auricle.

Multiple pulmonary emboli and infarcts.

Anatomical Diagnoses

Metastatic carcinoma of pulmonary valve an arteries secondary to carcinoma of colon.

Multiple tumor emboli of pulmonary artery.

Pulmonary infarction, left lower lobe.

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[1] Associate Attending Physician, Bridgeport Hospital.

POST-MORTEM FINDINGS

Dr. Russell Pope[1]—The abdomen was completely negative except for adhesions and other findings that were secondary to the previous operation. There was no evidence of any recurring or metastatic carcinoma in the G.I. tract or abdominal viscera. The liver was normal in size and weight. There was no evidence of congestion except in a very minor degree. Right lung normal. Left lung had a small infarct in the left lower lobe. The heart was normal in size. Myocardium, auricular and ventricular chambers all quite normal. The aortic tricuspid and mitral valves all normal. However, in the pulmonary valve there was complete replacement by a large soft mass of grayish yellow structures attached to the ventricular surface of the valve. The largest of these measures 3 x 1.5 cm. Extending up from these and growing along the endothelium of the pulmonary artery were scattered areas of carcinoma which had produced thrombi over the surface. There was no major thrombus of the pulmonary artery or its two main branches. There is an infiltration into the media. The small and medium sized pulmonary arteries were occluded due to tumor thrombi. There was none in the inferior vena cava or other vessels. The coronary arteries were perfectly normal.

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[1] Associate Pathologist, Bridgeport Hospital.

Inflammatory Carcinoma of the Breast

"The literature on inflammatory carcinoma of the breast was studied with Dr. Stanley Schor, a statistician who has worked with our group on carcinoma of the breast for several years. He believes that the reported data are insufficient either to support or to reject the commonly held hypothesis that inflammatory carcinoma of the breast is inoperable and that surgical intervention accelerates the dissemination of the disease.

"Dr. Schor also pointed out that most of the articles in the English literature seemed biased toward the non-operative treatment. He pointed out that a typical protocol of a patient undergoing non-operative treatment reported in such an article would read: 'The patient, a woman of 45 years, was admitted with an extensive inflammatory carcinoma of the left breast. Study disclosed no evidence of distant metastases. X-ray therapy greatly relieved her pain and discomfort and causes shrinkage of the inflammatory signs. She was able to return to work for a month and died comfortably *six months* after admission.' The protocol describing the operative treatment would read: 'The patient, aged 45 years, was admitted with an extensive inflammatory carcinoma of the left breast. No signs of distant spread were found. A radical mastectomy was performed. The lesion spread like wildfire, metastasized widely and produced severe pain. The patient could work for only a month and died miserably *six months* after operation.' These protocols may be slightly exaggerated, but anyone who will take the trouble to read the literature on inflammatory carcinoma of the breast will agree, I think, that there has been considerable bias on each side of the treatment problem.

"I think we should not teach that patients with inflammatory carcinoma of the breast must never be operated on. A few of these patients may be helped by operation, especially those with the localized form of the disease. Certainly the question has not been answered conclusively."

William T. Fitts, Jr., M.D., Department of Surgery, University of Pennsylvania. From *Surgery, Gynecology and Obstetrics*, July, 1958.

Arterial Grafts

"Every series of grafts should be analyzed and reported since the dramatic successes in the literature encourage heroic and, often, hopeless surgical efforts by some unskilled in this field.

"The decision to insert a graft must depend on a knowledge of the disease and its probable course in that particular patient and not on the mere technical ability to insert a graft. While the determination to graft may rehabilitate a vascular cripple, the wrong decision may cause a death or loss of a limb.

"Thus, the responsibility for deciding to insert a vascular graft must be known and accepted by the vascular surgeon. It depends on many factors, both of a local and general nature, but mostly on the years of experience in this field."

Gerald H. Pratt, M.D., *Surgery, Gynecology and Obstetrics*, July, 1958.

Mitral Stenosis and Gallstones

"Women between the ages of 26 and 45 make up the greater proportion of most reported series of patients who have been operated upon for mitral stenosis. An unusually high incidence of gallstones has been found by us in this group of young women. Many of them have had episodes of acute cholecystitis in the immediate postoperative period following valvulotomy. Acute cholecystitis following operations unrelated to the biliary tract is not uncommon. The majority of instances of acute cholecystitis occurring as a postoperative complication develops in the gallbladder containing stones.

"In the immediate postoperative period following valvulotomy a patient with mild right heart failure may have congestion of the liver with some enlargement and tenderness particularly over the gall bladder region. A differential diagnosis between right heart failure and an acute cholecystitis may be difficult. A previous examination of the biliary tract that reveals it to be normal or indicates stones or malfunction is of great help in evaluation of the patient. It is suggested that because of the high incidence of gallstones in women with mitral stenosis an examination by x-ray (cholecystography) be made in all such patients even though a history of symptoms referable to the biliary tract is not elicited.

"In patients with mitral valvular heart disease who develop an acute cholecystitis following valvulotomy, symptoms and findings often tend to persist and even progress so that operation is mandatory. This additional burden superimposed upon the cardiac patient before she has recovered from the discomfort and pain of a thoracotomy is to say the least undesirable. This has led the authors to formulate the policy that provides for (1) an evaluation of the biliary tract for all patients being considered for mitral valvulotomy and (2) that unless the indications for the surgical correction of the mitral stenosis are most urgent biliary tract disease if present be attacked first. Usually cholecystectomy alone or combined with common duct exploration is done. This has been well tolerated by patients with moderately severe mitral stenosis. Three weeks or more thereafter the mitral stenosis is corrected."

Frank Glenn and S. Frank Redo in *Annals of Surgery,* June, 1958.

Pseudo-Hirschsprung's Disease

Pseudo Hirschsprung's Disease has been encountered by Mark M. Ravitch, M.D. in four types of patients referred for treatment of megacolon. These four types, he reports in the *Annals of Surgery* June 1958, are:

1. Psychogenic constipation — pseudo-Hirschsprung's disease. Unlike Hirschsprung's disease, symptoms do not appear at birth, encopresis is common, and the barium enema shows no narrow distal segment.
2. Mental retardation and cerebral defects.
3. Corrected imperforate anus—on the basis of stenosis, imperfect innervation, or poor habit training.
4. Cretinism—severe constipation and intestinal dilatation may be the presenting symptoms.

Treatment in these four groups is: 1. Open discussion with parent and child, assumption by the physician of full control of the details of treatmen and relegation of the parent to the role of th physician's agent in following the prescribed regimen. 2. Regular enema regime. 3. Enema regim much as in 2 and dilatation of strictures, or anoplasty. 4. Thyroid hormone therapy relieves the constipation of hypothyroidism and causes reversion o radiographic changes in the colon and rectum.

Thrombosis of Mesenteric Arteries

Two cases of atherosclerotic occlusive disease o the superior mesenteric artery in which surgical relief was accomplished by thromboendarterectom are reported in the *New England Journal of Medicine,* May 1, 1958, by Shaw and Maynard. In on case, an acute thrombosis was associated with transient postoperative malabsorption. In the othe chronic thrombosis produced a picture of intestina malabsorption, intermittent abdominal pain an weight loss, eventually leading to acute intestina infarction. The diagnosis in this patient was established preoperatively by aortography. The author suggest that the diagnosis be considered in patient with unexplained malabsorptive states and tha thromboendarterectomy may represent an effectiv therapy in these patients, as well as in those i whom mesenteric vascular thrombosis results in intestinal infarction.

Internal Medicine

"The specialty of internal medicine will increas in importance because the internist will be recognized as a specialist by his patients, by the community, by his teachers and by his colleagues . .

"In this desire to improve the status of interna medicine and the quality of medical care, specialization will continue to grow. The problem of distribution of medical services will have to be examine in a continuing way. A re-examination of the personal and professional relations between genera practitioners, physicians and specialists is required as well as professional relations with hospitals an nurses. . . . The functions of doctor specialists a new ones arise and others change need to be redefined. . . . the most important thing of all is t make the position of the internist in the communit one of honor, dignity and prestige. Without thi objective, all else will fail. . . .

"One need have no fear nor apprehension of th future of internal medicine if physician internist continue to think of the third party as the patien and not the insurance company. The ideal physician of the future as in the past will be he who i distinguished by what he does for people and wha they will accept from him."

Chester S. Keefer, in New England Journal of Medicine, May 29 1958.

CONNECTICUT MEDICINE

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ILLUSTRATIONS: Illustrations, tables, etc., should bear the author's name on the back and the figure number. Photographs should be clear and distinct; drawings should be made in black ink (preferably India ink) on white paper. CONNECTICUT MEDICINE will bear the cost of printing two cuts accompanying manuscripts submitted for publication. The cost of printing more than two cuts must be borne by the author.

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New Cover

General approval of a change in cover design to include a table of contents was expressed at the first meeting of our new editorial board. We hope that those who relinquish the old with regret are outnumbered by those who welcome the new. In particular we hope that the more accessible index will be found to be of merit.

Announcement

A prize of $100.00 is hereby offered to the member of a resident staff of a hospital anywhere in the United States who submits the manuscript deemed outstanding by this journal in the 12 months beginning with the publication of this issue. Articles submitted before August 1, 1959 will be entered in the contest. Attention is directed to the paragraph in the masthead regarding acceptable length of contributions.

Blue Shield Problems

Study of the short history of Connecticut Medical Service, Inc. reveals that from its inception in 1949 the State Medical Society has had no real control over this corporation. It would have been much easier, we can see in retrospect, to have made sure of this control nine years ago. Then this plan was a fledgling without a name, without a subscriber, indeed without funds. With $5,000 donated by the State Medical Society, under the aegis of the society's sponsorship and with the pledges of participation of individual physicians C.M.S. started on its merry way.

Profits of a million dollars a year, in recent years, have added up to reserves of $7,500,000.00 for this tax-free corporation. The board of C.M.S. today is more inclined to issue directives than take counsel and act only after consideration of the origins of its financial stability.

Connecticut Blue Cross also donated $5,000.00, office space, the use of their facilities, advice, helpful cooperation and the benefit of its experience to C.M.S. in its infant days. This parental connection was severed in 1953.

Not long ago, in a fitting ceremony, C.M.S. chose to return the $5,000.00 originally donated by the State Society.

Louis H. Bauer, M.D., President of the American Medical Association in 1952, now chairman of the United Medical Service, Inc. of New York, speaking at the conference of Blue Shield Plans in April of this year, made the following cogent remarks:

"Some of our plans are no longer doctors' plans except in name . . . often it is the fault of the medical society in letting control of the plan slip out of its hands . . . it is the duty of the Board of Trustees to see that this control is strengthened or, where necessary, returned to where it belongs—in the hands of the medical profession. The key to the correct balance of Blue Shield strength lies in the relationship of the board to the medical societies it represents.

"Plan trustees must see to it that no major change in policy is approved by the board unless the changes first meet with the approval of the medical societies. This applies to such policies as the extent of coverage offered, service benefit level, fee schedules, and so forth."

Politics

Recent storms in French politics provoked the observation by Walter Lippman in his syndicated column in the daily press that "revolutions" come about not primarily from positive action, but as a result of the prolonged and demonstrated failure of those in positions of authority to fulfill their proper functions. Intrigue, impotence, self-seeking for whatever motive, and a lack of interest in the concerns of those they represent, he stated, prepare the way for changes that are overdue.

Most of us have been told that the American Medical Association with its component State and County organizations, is a democratic structure. While all offices are duly voted upon, there has been no mechanism encouraging the consideration of opposing slates. The presentation of one slate by a nominating committee composed of incumbent officers, with the only possible opposition to be nominated from the floor, is not a democratic process. This situation has existed in Connecticut and we suspect it to be nation-wide.

In 1947 a "Committee to Study Organization of the State Society", after due consideration, merely suggested changes to bring regulations of the county societies into conformity. There was no mention made of possible consolidation of the smaller counties, each one of which has equal representation with the large counties on the Council of the State Society. One county, at the present time, has a councillor and alternate councillor on the State Council, representing a total county membership of twenty-one physicians!

A former President of the State Society has rather frankly revealed: "To operate a county medical society requires a certain amount of inside and outside politics. These politics should be carried on with a single objective: namely, to improve the society in its service to the public and its members. Too many medical societies are maintained by one physician or a small group of physicians. Our medical societies must not be 'private' clubs run by a few physicians in the county."[1]

Another former President, speaking possibly in jest, yet probably with a grain of truth, remarked: "The President of the State Society is something like a Constitutional Monarch, I think."[2]

As we sympathize with the political problems of France, perhaps consideration should be given to changes in the organization of the medical society in the State of Connecticut, to effect more democratic representation and to provide the opportunity for all to be heard proportionally in its council halls.

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[1] Thomas J. Danaher, M.D. Conn. State Med. Journal p. 936. 1949.

[2] Samuel C. Harvey, M.D. Conn. State Med. Journal p. 895, 1949.

Basic Research

Although it was patented in 1877 the bedpan, that "invention of the devil" as one physician who had experienced its tortures described it, has hitherto had no historian. There is no doubt of course that some contrivance of the kind had been in use before 1877, though probably less streamlined than the modern utensil. William Heberden the Younger, who in 1815 devised the precursor of the modern hospital bed, a wooden frame which fitted on top of the bedsprings, designed his device so that it contained a long, narrow drawer athwart its middle into which could be placed a pan which, by pulling out the drawer, could be removed, cleaned and replaced without disturbing the patient. The center of the drawer was perforated by an opening over the pan and the overlying mattress was in two parts, one above and one below the transverse drawer. Over the pan was a circular hole in the mattress, the edges of which were protected by oiled silk and were therefore washable. There was also a round pad which fitted into the hole when the bedpan was not in use.

For a long time observant physicians and nurses have noted that the use of the modern bedpan was associated with undue physical exertion and also with psychological reactions. As Benton* and his associates remark, many patients who have gone through the discomforts of major surgery regard these as of little moment as compared with their unpleasant experiences with the bedpan. Not only

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*Benton, Brown, and Rusk; Jour. Amer. Med. Assn., 1950, *144*, 1443. Wm. Heberden, Jr., Med. Trans. 1815, *5*, 39.

is there physical exertion involved in getting properly placed and balanced on the device, but also a psychological reaction compounded perhaps of fear of messy disaster plus a feeling of insulted dignity. In recent years many practitioners, notably cardiologists, have felt that there was less strain associated with the use of the bedside commode than with that of the bedpan.

It is a satisfaction to know that the researches of Benton and his associates prove scientifically by analysis of oxygen consumption that the effort expended in using the bedpan is almost fifty per cent higher in cardiacs than that expended in using the commode. This points to the obvious conclusion that in many bedridden cardiacs the use of the commode is preferable to that of the bedpan. This does not mean that we must abandon the bedpan, for there will still be patients who are so desperately ll that it is inadvisable to allow them the privileges of the commode.

G. B.

IN MEMORIAM

BAILEY, N. HERBERT—Hartford; University of Mary-and School of Medicine and College of Physicians and urgeons, 1911; at one time Hartford Deputy Health Officer and member of medical staffs at several Hartford area hospitals; died June 30, aged 78.

BRACKETT, ARTHUR S.—Riverside; Jefferson Medical College, 1895 with honors; practiced in Bristol, 1896 to 951; one of original incorporators of Bristol Hospital, 1922, where he served as senior attending physician and member of the Pediatrics Staff until 1951; resided with a daughter n Greenwich during past few years and died at Greenwich Hospital May 13, aged 88.

DEMING, C. KENNETH—New Haven; Columbia Uni-ersity College of Physicians and Surgeons, 1917; assisting urgeon and medical examiner, Yale University Department f Health to 1931; associate clinical professor of industrial medicine, Yale University School of Medicine to 1946, and ssistant surgeon until his death February 21, at his home. ged 64.

DeBONIS, DOMENICK A.—West Hartford; University f Naples Medical School, 1890; died at St. Francis Hospital, ebruary 17 of bronchopneumonia and arteriosclerotic heart lisease, aged 93.

DWYER, CHRISTOPHER E.—Waterbury; Georgetown Jniversity School of Medicine, 1925; past president of New Haven County Medical Association and Waterbury Medical ociety; physician in Waterbury for 30 years and president of medical staff, St. Mary's Hospital, 1956-57; president of Waterbury Health Board 1956-58; died while performing his duties at St. Mary's Hospital, Waterbury, April 18, aged 59.

GOLDBERG, SAMUEL J.—New Haven; Yale University School of Medicine, 1907; died April 27, aged 63.

LABENSKY, ALFRED—New London; Yale University School of Medicine, 1921; past president of the New London Medical Society; was first physician from that city to be certified by the American Board of Internal Medicine; first to become a fellow of the American College of Physicians; practiced in New London since 1923 and was chief of staff at Lawrence Memorial Hospital since 1934, except for a three year period; died at the hospital July 7 following a long illness, aged 66.

LEWIS, ROBERT M.—New Haven; University of Pennsylvania School of Medicine, 1910; retired professor at Yale University School of Medicine, was associate clinical professor of gynecology and obstetrics; died June 20, aged 72.

MARGLIS, BEN—Bridgeport; Bowdoin Medical College, 1920; founder of Eye, Ear, Nose & Throat Hospital in Bridgeport; died at Miami Beach March 8, of a heart attack, aged 68.

PADULA, VINCENT D.—Hartford; University of Rome Medical School, Italy, 1935; interned at Home Memorial Hospital, New London, and started practice in Hartford 1937; died at St. Francis Hospital, Hartford, May 16, aged 53.

POND, MELBOURNE J.—New York City; Rush Medical College, 1915; practiced ophthalmology at Fordham Hospital; died January, day unreported, aged 72.

PURINTON, CHARLES O.—New Hartford; Yale University School of Medicine, 1897; veteran World War I; for many years on staff of Veterans Administration Hospital in Sunmount, New York; died January 12 in Winsted of arteriosclerosis, aged 84.

SEKERAK, ARTHUR J.—Bridgeport; University of Maryland School of Medicine and College of Physicians and Surgeons, 1922; president Bridgeport Medical Society, 1951; president St. Vincent's Hospital Medical Staff, 1946; died February 19, at St. Vincent's Hospital of a heart ailment, aged 60.

STANLEY-BROWN, MARGARET—Washington; New Milford College of Physicians & Surgeons, 1923; member of the surgical staffs of several New York Hospitals for a number of years; later practicing in Washington, Connecticut. Granddaughter of President James A. Garfield; died June 12 at New Milford Hospital, aged 63.

STEPHENS, RICHMOND—Stamford; Columbia University College of Physicians & Surgeons, 1913; practiced orthopedic surgery New York and Stamford for 40 years; Associate Professor of Orthopedic Surgery at the Cornell University Medical College; died at his home March 17, aged 67.

Connecticut State Medical Society

The President-elect

Dr. Elwood C. Weise Sr. has been engaged in the private practice of medicine in Bridgeport for over thirty-five years and has been a member of the State Society since 1922. He is the new President-Elect of the Connecticut State Medical Society and will succeed to the Presidency in 1959. He and his son, Dr. Elwood C. Weise Jr., are in the active practice of dermatology in Bridgeport.

Dr. Weise was born in Philadelphia in 1896. After graduation from Jefferson Medical College he came to Bridgeport in 1920 as an interne at the Bridgeport hospital. He later served as a resident at the Bridgeport city dispensary. During World War I he served as a member of the Army Enlisted Reserve Corps and the Student's Army Training Corps.

He has been a member of the State Board of Examiners of Hypertrichologists, having been appointed to this post by the governor. He has a long record of service both on state and county society committees as well as having been Secretary and President of the Bridgeport Medical Association.

Dr. Weise is chief of the division of dermatology at Bridgeport hospital and an honorary staff member at St. Vincent's hospital. He held a teaching appointment as instructor in dermatology at the College of Physicians and Surgeons, Columbia University, from 1927 to 1940 and is also a former assistant attending dermatologist at Vanderbilt Clinic, Columbia-Presbyterian Medical Center, New York. He was certified by the American Board of Dermatology in 1933.

Dr. Weise has contributed scientific articles to this Journal, to The New England Journal of Medicine, and to the Journal of the American Medical Association. He is a member of the American Legion, of the Medical Advisory Committee of the Bridgeport Chamber of Commerce, and of the Steering Committee of the Health Council of the Bridgeport Community Chest.

Dr. Elwood C. Weise, Sr., M.D.

Mrs. Weise is the Treasurer of the Women's Auxiliary of the Fairfield County Medical Association and has been active in its affairs for a number of years. She and Dr. Weise have two other sons, Charles R. and Kenneth S. Weise.

The interest of Dr. Weise in county and state medical society affairs was rekindled after he had been appointed as chairman of investigative committees of both the Bridgeport City and Fairfield County Medical Associations. The purpose of these committees was to look into the controversial aspects of the new C.M.S. contract about which very little was known by the profession at the time.

Having accepted this office Dr. Weise will serve the Connecticut State Medical Society well since he never undertakes an assignment unless he intends to fulfill it wholeheartedly.

John Henry Grossman, M.D.

COUNCIL MEETING

Wednesday, June 18, 1958 — 3:30 P.M.

A regular monthly meeting of the Council was called to order by the Chairman, Dr. Feeney, at 3:30 P.M. on Wednesday, June 18, 1958. Present in addition to Dr. Feeney were Doctors Russell, Polito, Richards, Monahan, Carter, Gallivan, Weld, Scully, Davis, Gens, Clarke, Kennedy, Buckley, Blodinger, Archambault, Schiavetti, Eddy, Seigle, Grendon, Gardner, Rentsch, Hughes, Gilman. Absent were Doctors Ottenheimer, Starr and Weise.

CONSIDERATION OF ANNEX O., STATE PLAN FOR MEDICAL CARE DIVISION OF STATE DEPARTMENT OF CIVIL DEFENSE

Dr. Reginald Edson, Chairman of the Society's Committee on Casualty Planning had been invited to attend this meeting of the Council and he discussed and simplified material contained in the document. He felt this material was largely for information purposes and did not commit the Society in any way if it were accepted.

Dr. Edson directed the attention of the Council to the three suggestions made at the end of the report of his Committee on April 29, 1958 and accepted by the House of Delegates on that date:—

"1. Urge the appointment of a full-time medical director to the State Civil Defense Administration to take the place of Dr. Keeler.

2. Encourage county medical societies to set up local correlated and coordinated disaster programs.

3. Encourage adequate assignment of Civil Defense emergency hospital units and opportunities for medical and parimedical personnel who would have to staff these to become familiar with them."

Dr. Edson enlarged upon these suggestions and the Council then VOTED as follows:—

(a) to accept the State Plan for information and to endorse it in principle

(b) to authorize the Society's Committee on Casualty Planning to explore the possibility of joint meetings with such organizations as the Connecticut Hospital Association, State Department of Health, and other allied organizations to implement the suggestions of the Committee accepted by the House of Delegates April 29, 1958.

(c) to authorize the same committee to explore similar action with other committees of the Society for the same purposes

(d) to authorize Dr. Edson to attend a regional meeting of the Committee on Civil Defense of the A.M.A. Council on National Defense to be held in Boston on September 13 and 14, 1958 and to consider a suitable appropriation to defray Dr. Edson's expenses when submitted.

APPOINTMENT TO COMMITTEE ON MENTAL HEALTH

Replacement of Charles S. Culotta (resigned) as a member of the Committee on Mental Health was considered. It was voted to appoint William Glaser, pediatrician of New Haven, a member of this committee.

APPOINTMENT OF CHAIRMAN FOR COMMITTEE ON AGING

It was VOTED to appoint John P. Donnelly, Hartford, as Chairman of this Committee and to recommend John P. Bachman, Hartford as alternate appointee in the event that Dr. Donnelly could not accept the chairmanship.

CORRESPONDENCE RE MANAGING EDITOR OF JOURNAL

A first letter from Arthur B. Landry of Hartford and a second letter from Hartwell G. Thompson of Hartford were read. The substance of both letters was a request for an explanation of, or expression of attitude by, the Council relative to the failure of Dr. Stanley B. Weld to be re-elected to the post of Managing Editor of the Journal on April 29, 1958. It was the opinion of the Council that it had no responsibility in this matter and therefore VOTED "no action."

RESIGNATIONS FROM THE THOMAS PATRICK MURDOCK SCHOLARSHIP AND LOAN FUND RAISING COMMITTEE

Letters of resignation from the Committee appointed by the Council on May 21, 1958 were read and accepted with regret from Doctors Otis, Gibson, Danaher and Fincke. These resignations left Creighton Barker as the only member of the committee not resigned.

As a result of these resignations, it was decided that the Council would take no further action in this matter at this time and VOTED to empower the Executive Secretary to communicate with the Meriden Medical Society to determine what suggestions that organization might have as regards the reactivation of this committee and possible recommendations as to its membership.

SUB-COMMITTEE ON JOURNAL FINANCES

It was VOTED to empower the Chairman of the Council to alter or enlarge the sub-committee of the Council appointed on January 8, 1958 "to inquire into Journal finances and report with recommendations prior to consideration of 1959 budget" and to outline its functions. Committee appointed as follows: Frank Polito, Chairman, David T. Monahan, Norman H. Gardner, Stanley B. Weld, Michael R. Scully.

ELECTION OF STUDENT MEMBER

Election of Dr. Ralph Katz as a student member was VOTED under the provisions of Article V, Sec. 3, Paragraph 1 of the By-laws, Resident St. Raphael's Hospital, M.D. Univ. of Basel, Switzerland 1956.

REPORT OF COMMITTEE TO STUDY EMPLOYMENT OF AN ASSISTANT TO THE EXECUTIVE SECRETARY AND PLANS FOR RETIREMENT OF DR. BARKER

Dr. Eddy, Chairman of the Committee, made the report and recommendations which, after amendment, were considered separately as follows:—

(a) That Dr. Creighton Barker be granted a pension of six thousand dollars annually following his retirement and such pension to continue during Dr. Barker's lifetime. APPROVED

(b) That Dr. Barker's retirement take place (30) days after approval by the Council. APPROVED

(c) That the Executive Secretary, as presently provided for in the By-laws, be elected annually by the House of Delegates and receive an honorarium of five hundred (500) dollars a month. APPROVED

(d) That the incumbent Executive Secretary, William R. Richards, receive payment of this honorarium retroactive to the date of his election, April 29, 1958. APPROVED

(e) That (1) an employee of the Society be designated as Assistant to the Executive Secretary. APPROVED. (2) this employee be a non-medical (lay) person. APPROVED. (3) Mrs. Josephine P. Lindquist, presently employed as Administrative Assistant be designated to occupy this position. APPROVED

APPOINTMENTS TO CONNECTICUT ADVISORY SCHOOL HEALTH COUNCIL

It was VOTED to reappoint Joseph L. Hetzel, Waterbury and Charles A. Murphy, Stamford as the Society's representatives to the Connecticut Advisory School Health Council.

AMA CONFERENCE ON MENTAL HEALTH

Dr. John Donnelly, Chairman of the Committee on Mental Health was appointed to attend the Fifth Annual Conference on Mental Health Representatives in Chicago on November 21st. The Council approved the expenditure of $162.90 for this purpose.

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SALARY FOR MANAGING EDITOR OF JOURNAL

It was pointed out by the Treasurer that the salary for this position has already been established for the current year. It was agreed that consideration of this matter for subsequent years should be referred to the committee to be designated by the Chairman of the Council.

REGISTRATION FEE FOR CLINICAL CONGRESS

The suggestion of Dr. Ebbert, Chairman of the Committee on Postgraduate Education, arranging the Clinical Congress, was amended to authorize a registration fee of $5.00 instead of the suggested $3.00.

DATE AND PLACE FOR 1958 SEMI-ANNUAL MEETING OF HOUSE OF DELEGATES

(a) Thursday, December 11, 1958 was selected as the date of the Semi-Annual meeting of the House of Delegates.

(b) Hartford, Connecticut was approved as the place for this meeting.

(c) The Executive Secretary was requested to ask permission of the Hartford Medical Society to hold this meeting at the Hartford Medical Society's Building.

(d) Time of the meeting will be determined by the length of the agenda.

DATE AND PLACE FOR 1959 ANNUAL MEETING

Israel Blodinger, Councilor from New Haven County, was requested to inquire of his association as to whether the New Haven County Medical Association would wish to invite the Society to hold its 1959 Annual Meeting in that County. Dr. Blodinger agreed to make this request and report to the Council at its next meeting.

DISCUSSION OF CONNECTICUT MEDICAL SERVICE

(a) Report of Sub-committee to meet with Board of Directors of Connecticut Medical Service.

Dr. Feeney, Chairman of the Council, gave a comprehensive report on the two joint meetings of the sub-committees of the Council and of the Board of Directors held since the joint meeting of the full Council and Board held on May 28, 1958. Dr. Feeney indicated that the members of the Council's sub-committee were generally dissatisfied with the progress being made, feeling as they did that the Board seemed to have no sense of urgency about the matter of correcting its unilateral action taken on February 17, 1955 by which it denied to the Society any right to recall and replace its six physician representatives serving on the CMS Board of Directors. Dr. Feeney also reported that the sub-committee had informed the Board, fact by fact and name by name, of all the events and individual's actions which had caused the controversy between the Society and CMS and resulted in the Society's complete loss of confidence in the six physicians presently serving on the Board. Despite this information, he continued, some members of the Board still seem to feel that it has received sound advice from these physicians and continue to express some doubt that the Connecticut State Medical Society really represents the doctors of the state. Under these conditions, he concluded, negotiations have not been satisfactory and although the sub-committee has been given assurance that the Board will submit concrete proposals in the matter of restoration of equal representation before July 1, 1958, the outlook is in no sense optimistic. Other comments and discussions of this matter followed and it was generally agreed that the Council must become more aggressive in its actions and more insistent that its demands be met if these negotiations are not to be dragged out interminably and possibly have the whole controversy become a political issue in the state elections to be held this Fall.

Acting on this report and discussion, the Council considered the following specific motions:

1. That a letter be sent to all members of the Society informing them of the Council's progress in negotiations with Connecticut Medical Service. This motion was approved unanimously. These letters were mailed June 23, 1958. It was agreed that the Council would appropriate funds to cover the cost of this mailing.

2. That the Executive Secretary send a letter to each of the six physicians now serving on the Board of Directors of C.M.S. asking him to resign in the interests of preserving the dignity of, and unity in, the Connecticut State Medical Society. This motion received majority approval.

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(B) Letter from Bliss B. Clark

The Executive Secretary read a copy of a letter from Bliss B. Clark, Chairman of the President's Committee on C.M.S. to Mr. Judd, Chairman of the Board of Directors of Connecticut Medical Service. Dr. Clark expressed the feeling that he might properly have been accorded the courtesy of being asked for permission to use any portion of the report of his committee as a basis for the issuance of the C.M.S. referendum. He pointed out that there was nothing stated or implied in the report which authorized a referendum and objected to the representation being made that there was. He felt that this was even more unwarranted since the report of his committee had not been accepted by the House of Delegates on April 29, 1958. He concluded by voicing the opinion that Connecticut Medical Service continues to act in bad faith in many matters involving physicians and indicated that he felt that a change in the directorship of Connecticut Medical Service was necessary. This was read for information only.

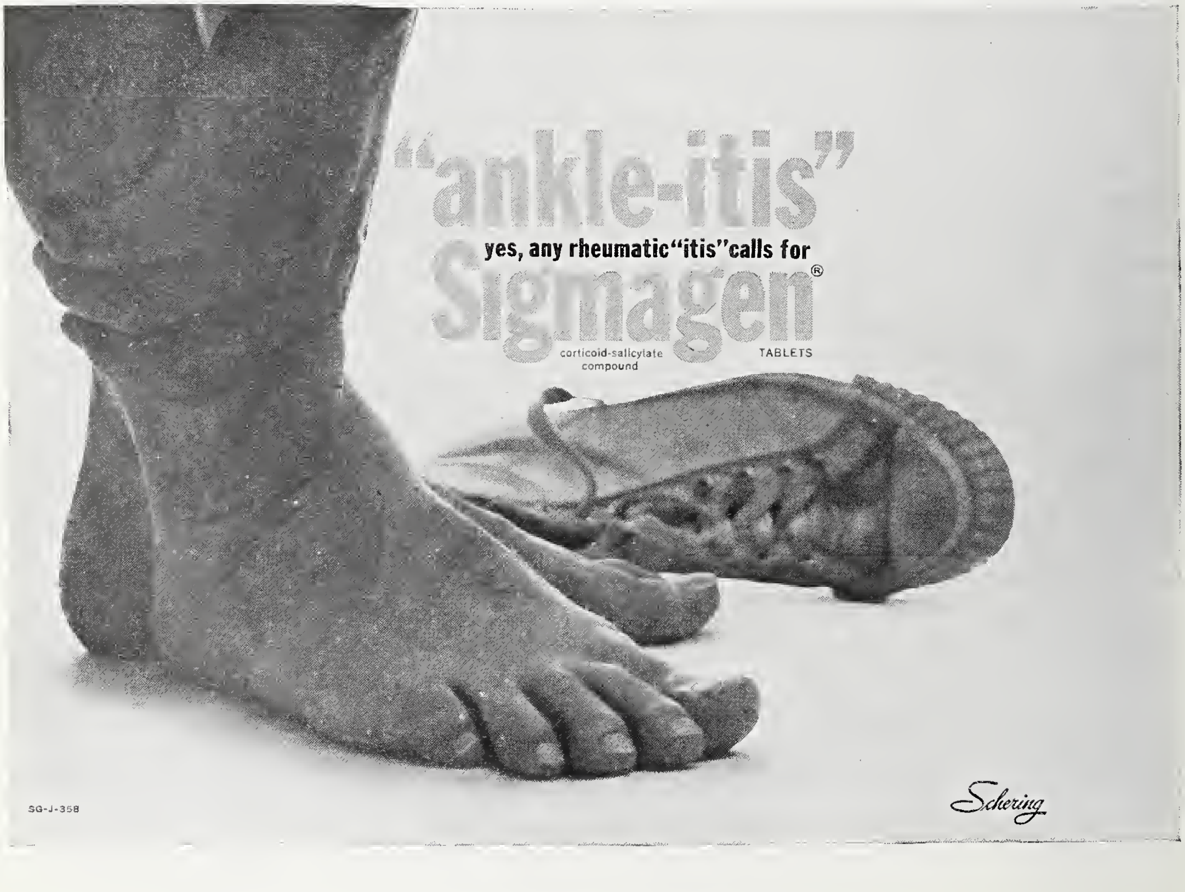
(C) Resolution from Middlesex County.

The motions referred to the Council by the Middlesex County Medical Association were read but since Connecticut Medical Service had already issued its referendum before receipt of these motions and since the Council plans to discuss no other matters with Connecticut Medical Service until restoration of equality of representation has been effected, no action was felt necessary on these motions at this time.

MEDICARE COMMITTEE

(a) Dr. Clarke, Chairman, recommended that Alexander Bellwin of Stamford (obstetrician) be appointed to the MEDICARE Committee to replace Dr. Hugh K. Miller, resigned. Dr. Bellwin's appointment was approved.

(b) Dr. Clarke moved that the Executive Secretary be requested to send telegrams to all Senators concerned and before June 20, 1958 informing them that the Council opposes reduction in MEDICARE appropriations on the grounds that such a reduction will force one-fifth of the dependents of military personnel to seek medical care at military installations, thereby being denied free choice of physicians and disrupting the present satisfactory civilian program. The Council urges these Senators to vote against Section 633 of the Defense Department appropriation bill.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(c) Dr. Clarke informed the Council that an error in the fee schedule of the MEDICARE Contract in effect during 1957 had not been discovered until February 1958 and that a fairly large number of claims were awaiting settlement as a result. The Defense Department had been asked to honor these claims on the incorrect schedule of fees but it has thus far refused to do so. Dr. Clarke could offer no solution to this problem.

REPORT OF COMMITTEE ON MEDICAL CARE OF VETERANS

Dr. George A. Buckhout, Chairman, notified the Council that

(1) a new system of negotiating fee schedules with the Veterans Administration through regional Veterans Administration offices rather than through the national office in Washington is now in effect;

(2) a new fee schedule has been negotiated by the Committee and is submitted for inspection of the Council, and;

(3) Dr. Buckhout requests authority to complete negotiations by forwarding a signed letter of agreement and fee schedule for the fiscal year July 1, 1958 to June 30, 1959.

The Council VOTED to accept the report of the Committee, approve the fee schedule and authorize Dr. Buckhout to complete negotiations. The thought was expressed by several members of the Council that it is unfortunate that fee schedules such as this could not be negotiated at a sufficiently early date so as to allow time for the schedule to be acted upon by the Committee on Third Party Payments before submission to the Council for approval. No action was taken in this matter.

RESIGNATION OF DELEGATE TO AMERICAN MEDICAL ASSOCIATION

Dr. Feeney read a letter from Dr. J. Alfred Fabro, Torrington, tendering his resignation as Delegate to the American Medical Association for the term January 1, 1959 to December 31, 1960. It was VOTED to accept his resignation with regret. The Council unanimously nominated John N. Gallivan, Hartford as Delegate to the A.M.A. to replace Dr. Fabro, this nomination to be presented for action at the next meeting of the House of Delegates.

DATE OF NEXT MEETING

It was VOTED that the next meeting of the Council will be held on Tuesday, July 8, 1959.

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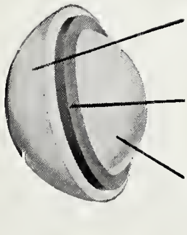

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COUNCIL MEETING

Tuesday, July 8, 1958

A regular monthly meeting of the Council was called to order by the Chairman, Dr. Feeney, at 4:00 P.M. on Tuesday, July 8, 1958. Present in addition to Dr. Feeney were Doctors Russell, Polito, Richards, Monahan, Carter, Weld, Scully, Davis, Kennedy, Buckley, Blodinger, Eddy, Seigle, Grendon, Gardner and Rentsch. Absent were Doctors Weise, Gallivan, Gens., Clarke. Archambault, Schiavetti, Ottenheimer, Starr, Hughes, Gilman.

APPOINTMENT OF REPRESENTATIVE TO ADVISORY COUNCIL OF THE CONNECTICUT HOSPITAL AND MEDICAL FACILITIES SURVEY AND CONSTRUCTION PROGRAM. The Council VOTED unanimously to ask Dr. Creighton Barker to continue to serve as representative from the Society.

RESIGNATION FROM AMEF COMMITTEE. Dr. R. H. Abrahamson, Stamford, submitted his resignation from the AMEF Committee which was accepted with regret. Dr. Daniel E. Hardenbergh of Bridgeport was unanimously VOTED to succeed Dr. Abrahamson.

NOMINATION TO PRESIDENT'S COMMITTEE ON EMPLOYMENT OF THE PHYSICALLY HANDICAPPED. It was agreed that the Council could not make a recommendation for the 1958 Physician's Award. It was VOTED to direct the Executive Secretary to write the Secretary of the Governor's Committee suggesting that a suitable recommendation by the Committee on Industrial Health might be given due consideration in October or November, 1958 since action by August 15, 1958 is not possible.

RECOMMENDATION IN REPORT OF COMMITTEE ON MENTAL HEALTH NOT ACTED ON AT HOUSE OF DELEGATES MEETING, APRIL 29, 1958. It was VOTED to approve the Committee's request for a revision of the By-laws, providing for nomination of members for a minimum four year term of office with two new appointments being made each year. The Executive Secretary was directed to compose a suitable amendment to Article X, Sec. 3, Par. 13 so as to embody the recommended changes, publish same in the State Medical Journal prior to placing the amendment on the agenda for the semiannual meeting of the House of Delegates.

ESTABLISHMENT OF SUB-COMMITTEE ON SCHOOL HEALTH AS A SEPARATE COMMITTEE. In reply to the Council's request of May 21, 1958 additional information was received. Significant extracts were read from the letters from Dr. Hastings, Secretary of the Committee on Public Health and Dr. Hetzel, Chairman of the Sub-committee on School Health expressing views on this matter. It was the opinion of the Council that it has been the practice of the Medical Society to have standing committees of the Society composed only of members of the Society and on this basis, it was VOTED to retain the Sub-committee on School Health as a sub-committee.

SUPPLEMENTARY REPORT OF COMMITTEE TO STUDY EMPLOYMENT OF AN ASSISTANT TO THE EXECUTIVE SECRETARY AND PLANS FOR RETIREMENT OF DR. BARKER. A letter from Mrs. Josephine P. Lindquist had been reviewed by the Committee and its recommendations on the matters contained therein were as follows: (1) the determination of Mrs. Lindquist's salary will be referred to the Budget Committee and the Executive Secretary for consideration. APPROVED. (2) The title of her new post to continue to be that of "Assistant to the Executive Secretary". APPROVED.

Portions of several letters from Dr. Barker were read by Dr. Eddy which he indicated had been reviewed by his Committee. The Committee's report and action thereon is as follows:

"(1) It is recommended that no change be made in the Council's decision of June 18, 1958 that Dr. Barker be granted a pension of six thousand dollars annually following his retirement and such pension to continue during Dr. Barker's lifetime. Details regarding withholding tax should be referred to the Budget Committee and the Executive Secretary for consideration and appropriate action. APPROVED.

(2) It is recommended that Dr. Barker's pension be paid in twelve equal monthly installments. APPROVED.

(3) It is recommended that Blue Cross—Blue Shield coverage for Dr. and Mrs. Barker be paid for by the Connecticut State Medical Society during Dr. Barker's pension period and that Dr. Barker continue to reimburse the Society for the amount of additional premium to cover Mrs. Barker. APPROVED.

(4) It is the majority opinion of the Committee that the agreements finally arrived at by the Council in relation to Dr. Barker's retirement pension obviate the necessity for a contract but because of divided opinion the Committee wishes expression by the Council in this matter. It was VOTED 8-7 not to have a contract relative to Dr. Barker's retirement.

(5) It is recommended that two payments of $710.32 each be made to Dr. Barker within three months of his retirement to conclude the agreement made by the Council in November 29, 1950. APPROVED.

(6) It is recommended that the Connecticut State Medical Society's participation in the payment of Dr. Barker's membership dues in Clubs be terminated at the expiration of any existing obligation. It is the opinion of the Committee that the need by the Connecticut State Medical Society for Club membership should be reviewed by the Executive Secretary and the Budget Committee and recommendations be made by them to the Council at a subsequent meeting. The Committee urges the Council to express its appreciation to Dr. Barker for his generosity in offering to Society members, guest privileges during the remainder of 1958, on his membership in the New Haven Lawn Club, The Graduate Club, and the Hartford Club. APPROVED."

As an accessory matter relative to Dr. Barker's retirement, it was VOTED to request Mr. James Burch, Public Relations Officer, to assume responsibility for the Society's automobile as of August 1, 1958 and that the automobile may be "garaged" on the Society's property or otherwise at the discretion of Mr. Burch.

MEDICARE COMMITTEE APPOINTMENT. In order to comply with the directive of the Council in August 15, 1956 relative to the composition of the MEDICARE Committee, it is necessary to include representatives from each county. Dr. Kennedy, Councilor from Litchfield County, nominated Dr. Louis E. Garston, Torrington, a dermatologist, for this appointment. It was VOTED unanimously to approve Dr. Garston's appointment to serve on the MEDICARE Committee.

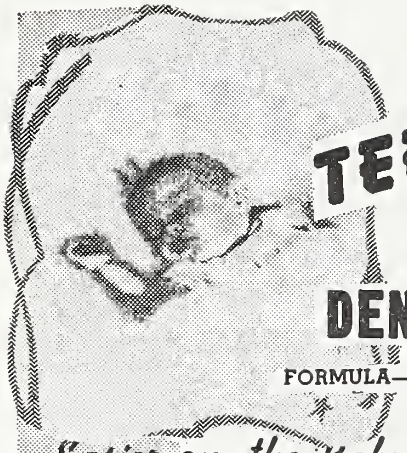
DISCUSSION OF CONNECTICUT MEDICAL SERVICE. *Report of Sub-committee*—The discussion on this most important matter was opened by Dr. Feeney, Chairman. He reviewed in detail the meetings of the Council's sub-committee with a similar group representing the C.M.S. Board. Each member of the Council had received a copy of the proposals offered by the Board on June 30, 1958 and were familiar with these proposals.

Dr. Feeney then gave a detailed report of the sub-committee which for economy of time and space is condensed as follows:

1. The Council and its sub-committee have consistently informed C.M.S. of three facts:—
    (a) The Society no longer has confidence in its present six representatives on the C.M.S. Board.
    (b) The Society wishes to make such replacements on the Board as seem necessary.
    (c) The Council has discovered a unilateral and undisclosed change in the C.M.S. By-laws, made in 1955, which denied this right to the Society.
2. The Council and its sub-committee have made only one request of the C.M.S. Directors; that they further amend the C.M.S. By-laws to restore this right.

Reviewing the C.M.S. proposals of June 30, 1958 point by point, Dr. Feeney made it clear that none of these proposals met this request. He reported that the negotiating sub-committee had informed the Board by telegram on July 2, 1958 to this effect and had requested a definite answer from the Board on the specific matter of recall and replacement. He then read to the Council a second letter from the Board of Directors dated July 8, 1958 expressing disappointment that the sub-committee did not favor the previous proposals, reviewing these proposals at some length and making this positive statement which appeared to be the direct answer to the Society's request: "We do not agree to a provision in the By-Laws for immediate recall and replacement. In our opinion, it would be unwise to permit summary retirement of a considerable portion of a corporate Board, at the will of a body that can not share its full range of public responsibilities."

The final conclusion of the sub-committee on the proposals of June 30th and the final opinion of the Council on the additional proposal received July 8th were that the Board had made no concession whatever on the right of



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recall and offered unsatisfactory terms regarding the right to replace the present unacceptable representatives of the Society on the Board.

The replies to letters sent to the present members of the Board requesting their resignations were presented as follows:—Dr. Danaher—no reply. Drs. Russell, Fincke, Archambault, Middlebrook—decline. Dr. Barker—agreeable.

At the conclusion of the report Dr. Feeney then offered the Council the recommendations of the sub-committee and these were acted on separately as follows:—

(1) Resolution. The meaning of this resolution was that having conveyed the facts contained in the report to the Board and having requested restoration of the right to recall and replacement of its representatives, the proposals made on June 30, 1958 and July 8, 1958 failed to take into account this basic request, it is therefore resolved that the Council rejects these proposals; that the Council engage in no future negotiations with the Board of C.M.S. and that the members of the State Medical Society be informed of the failure of the Board to comply with the reasonable and proper requests of the Council. APPROVED 16-1.

(2) Motion No. 1. It is moved that the Chairman of the Council appoint a committee of five members of the Council to study various plans; and report back to the Council with a recommendation as to the type of Plan for Prepayment of Physicians Services which can best be operated and controlled by the Society. This report and recommendations will be rendered to the Council at its next meeting. APPROVED UNANIMOUSLY.*

(3) Motion No. 2. It is moved that the Council of the Connecticut State Medical Society call a Special Meeting of the House of Delegates to convene on Tuesday, July 22, 1958 to consider the following items of special business:

(a) to withdraw the sponsorship of the Society from Connecticut Medical Service, Inc., and

(b) to receive and act upon the report of the special subcommittee of the Council with respect to the organization, incorporation, operation, and control by the Connecticut State Medical Society of a plan designed to provide prepayment for physicians' services. APPROVED WITHOUT DISSENTING VOTE.

(4) Proposed Press Release. A press release briefly summarized the developments of the CMS controversy, the actions of the Council, the nature of the negotiations with the Board, and the refusal of the Board to comply with the single request of recall and replacement. The release stated that it is the opinion of the Council that the Medical Society cannot continue to sponsor the CMS plan without acceptable representation and therefore the Council has no alternative but to call a special meeting of the Society's House of Delegates to discuss and act upon this problem. APPROVED UNANIMOUSLY.

(5) Motion No. 3. It is moved that the negotiating subcommittee of the Council be empowered to meet the press on July 9, 1958, and on subsequent dates as necessitated by the march of events, in order to release to the press such information re the Connecticut Medical Service controversy as has been accepted by the Council as fact. APPROVED UNANIMOUSLY.

(6) Motion No. 4. It is moved to direct the Executive Secretary to add or attach to the resolution discussed in paragraph "(1)" a resumé of these actions of the Council on the sub-committee's report and recommendations and that this material be sent to each member of the Society for information. APPROVED UNANIMOUSLY.

Correspondence re CMS: Letters from Drs. Edward P. Allen, Henry L. Birge, M. Hemingway Merriman and The Bristol Medical Society were read commending the actions of the Council. The Council was pleased to receive this information.

DELEGATE TO MAINE. A letter was read from Dr. Sydney Luria, Bridgeport, relative to his attendance as Delegate to the Maine State Medical Society Convention which he recently attended. No action was required.

DATE OF NEXT MEETING. It was voted that the date of the next Council meeting would be Thursday, August 14, 1958.

*Committee appointed as follows: Ellwood C. Weise, Sr., Bridgeport, Chairman; Israel E. Blodinger, New Haven; John N. Gallivan, East Hartford; John P. Gens, Norwalk; David A. Grendon, Sharon.

Thomas M. Feeney, M.D., *Chairman*
William R. Richards, M.D., *Executive Secretary*

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ANNOUNCEMENTS

Murray Brodoff, M.D., announces the opening of an office for the practice of internal medicine and gastroenterology at 385 Main Street, West Haven.

* * * *

Theodore A. Collier, M.D., announces the opening of an office for the practice of internal medicine in Middlebury, Vermont.

* * * *

Samuel J. Cornett, M.D., announces the opening of an office for the general practice of medicine and obstetrics at 468 Main Street, Cromwell.

* * * *

Frank DiCorato, M.D., announces the opening of an office for the practice of general medicine at 75 South Main Street, South Norwalk.

* * * *

Albert Rubin, M.D., announces the removal of his office to 712 Farmington Avenue, West Hartford.

* * * *

Vincent F. Sica, M.D., announces the opening of an office for the general practice of medicine at 1651 Main Street, Bridgeport.

* * * *

Howard J. Wetstone, M.D., Bloomfield, has accepted the position of senior investigator in research at Hartford Hospital. Physicians associated with him comprise Walter P. Kosar, Ralph E. Reinfrank, Rudolph V. LaMotta and Aldo L. Bellucci.

* * * *

Peter R. Cunningham, M.D., announces that he has entered private practice in Guilford and will be associated with Alan Mermann, M.D., pediatrician. Dr. Cunningham resigned the post of assistant director of the pediatric outpatient department at Grace-New Haven Community Hospital.

* * * *

Edith A. Mittell, M.D., announces the opening of an office for the practice of pediatrics at River Road, Madison.

* * * *

The State Board of Education for the Blind, in cooperation with Hillyer College, on June 20 concluded a graduate credit course for 23 members of its staff on "The Anatomy and Diseases of the Human Eye." The lecture at the closing session was delivered by Dr. Carlton G. Phillips, New Haven, who will be director of the low vision clinic at Grace-New Haven Hospital when it opens later this year. Dr. Arthur C. Unsworth, Hartford, was chief instructor for the course.

BOOKS RECEIVED

Cancer and the Atomic Age. By Clement A. Tavares, M.D. $3.50. 181 Pp. Vantage Press, Inc., 120 West 31st Street, New York, N. Y.

Memoirs of a G.P. By Otis Marshall, M.D. $3.50. 155 Pp. Vantage Press, Inc., 120 West 31st Street, New York, N. Y.

Crime and Insanity. Edited by Richard W. Nice. $6.00. 238 Pp. Philosophical Library, Inc., 15 East 40th Street, New York, N. Y.

Fat Consumption and Coronary Disease: The Evolutionary Answer To This Problem. By T. L. Cleave, M.R.C.P. (London) Surgeon Captain, Royal Navy with a foreword by Dr. Percy Stocks, C.M.G. $2.50. 38 Pp. Philosophical Library, New York.

Drugs of Choice 1958-1959. Walter Modell, M.D., Editor Associate Professor of Pharmacology, Cornell University Medical College; Attending Physician, New York Veterans Administration Hospital; Associate Visiting Physician, Bellevue Hospital; Member, Poison Control Advisory Board of New York City; Member, Revision Committee, United States Pharmacopeia XVI. $12.75. 882 Pp. The C. V. Mosby Company, St. Louis.

An Atlas Of Airborne Pollen Grains. By H. A. Hyde, M. A., F.L.S. Keeper, Department of Botany, National Museum of Wales Hon. Research Associate, Asthma and Allergy Research Unit, St. David's Hospital, Cardiff and K. F. Adams, B.Sc., Asthma and Allergy Research Unit, St. David's Hospital, Cardiff. $10.00. 110 Pp. with illustrations. St. Martin's Press, Inc., 103 Park Avenue, New York.

Medical Electrical Equipment. Principles, Installation, Operation and Maintenance of Electrical Equipment used in Hospitals and Clinics. Advisory Editor Robert E. Molloy, M.B., F.F.A., R.C.S. $15.00. 306 Pp. with 238 illustrations, Philosophical Library, Inc., 15 East Fortieth Street, New York.

Dietary Prevention and Treatment of Heart Disease. By John W. Gofman, Ph.D., M.D., Donner Laboratory, University of California, Berkeley, Alex V. Nichols, Ph.D., Donner Laboratory, University of California, Berkeley and E. Virginia Dobbin, Senior Dietitian, E. V. Cowell Memorial Hospital, University of California, Berkeley. $3.95. 243 Pp. G. P. Putnam, 210 Madison Avenue, New York City.

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peaker of the House of Delegates:
Thomas M. Feeney .... Hartford

'ice-Speaker of the House:
Michael R. Scully .... Bridgeport

'wo Delegates and Two Alternates to A.M.A. for term of Jan. 1, 1959 to Dec. 31, 1960):
James R. Cullen, Delegate ..... Hartford
Charles N. Sullivan, Alternate New Britain
J. Alfred Fabro, Delegate .... Torrington
John H. Grossman, Alternate . Bridgeport

elegate to A.M.A. (to fill unexpired term of r. Thomas Danaher, resigned):
Gray Carter, Delegate .... Greenwich

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Charles H. Peckham, Manchester
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David T. Monahan, Bridgeport

3. Committees on Hospitals

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4. Committee on Industrial Health

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Spontaneous Regression of Cancer

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It is generally recognized that the growth rate of the different types of cancer may vary greatly and that also the growth rate of a specific type of cancer may vary widely in different patients. However, it is less well established that on rare occasions certain types of neoplastic disease may even undergo apparent temporary or permanent spontaneous regression of partial or complete extent.

In 1955, a comprehensive study of the phenomenon of spontaneous regression of cancer was initiated by Dr. Warren Cole and the author under the sponsorship of the American Cancer Society. Cases of spontaneous regression of cancer published in the world medical literature and unpublished cases obtained by personal communication have been collected, evaluated, and analyzed.

We have defined spontaneous regression of cancer as the partial or complete disappearance of a malignant tumor in the absence of all treatment or in the presence of therapy which is considered inadequate to exert a significant influence on neoplastic disease. This, in general, is the definition proposed by Stewart.[20] It is not implied that spontaneous regression need progress to complete disappearance of tumor, nor that spontaneous regression is synonymous with cure. (In some cases tumor which underwent apparent spontaneous regression in one area flourished unchecked in other areas of the body or reappeared at a later time.)

There is both experimental and clinical evidence of spontaneous regression of cancer. Since it is not the primary purpose of this paper to discuss the voluminous literature covering regression of experimental cancer (much of which is probably not related to spontaneous regression of cancer in man), this aspect of the subject will be only briefly mentioned.

For example, it has been known for many years that when a cancer is transplanted into animals of the same genetic strain the transplanted tumor will "take" and grow in an appreciable percentage of the animals while in some of the animals the cancer will not "take" or will undergo regression after a period of growth. It is likewise known that carcinomas experimentally induced by prolonged administration of certain hormones (for example testosterone or estrogen) may regress completely upon withdrawal of the hormonal stimulation. Also, in recent years, Bryant[3] has demonstrated that in approximately 5 per cent of chickens inoculated with the ED 50 dose of Rous sarcoma virus regression of the Rous sarcoma will occur after a period of growth.

Clinical evidence of spontaneous regression of cancer may be divided into several categories.

1. *Regression of primary tumor.*
2. *Regression of metastatic tumor.* (Histologic confirmation of malignancy of metastatic tumor.)

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3. *Regression of metastatic tumor.* (No histologic confirmation of malignancy of metastatic lesion.) The validity of spontaneous regression of these lesions may be somewhat questionable, since the cancerous nature of the metastatic growth in these cases is based only on gross examination, although diagnosis of the malignant nature of the primary tumor is confirmed by histologic examination.
4. *Regression of presumptive metastases as diagnosed by roentgenograms.* Again the validity of spontaneous regression in these lesions may be questionable since there is no histologic proof of the malignancy of these lesions.
5. *Prolonged arrest of growth of cancer.*
6. *Prolonged latent period between development of primary tumor and evidence of recurrent or metastatic cancer.* The latter two categories, although not presenting per se evidence of spontaneous regression of cancer do support the thesis of possible biologic control of cancer.

Although more than 1,000 cases of spontaneous regression of cancer reported in the world medical literature or obtained by personal communication have been reviewed, to date only 90 cases have been considered by us to have adequate documentation (including histologic confirmation of the malignancy) to accept as probably examples of spontaneous regression of cancer. The majority of unacceptable cases were rejected because of absent, inaccurate, or controversial histologic diagnosis of malignancy. However, for the present time we have arbitrarily excluded certain categories from consideration. These include publications prior to 1900 (because of the greater possibility of inaccurate histologic diagnosis of cancer), epitheliomas of the skin (because of publications indicating that the histologic diagnosis of cancer in the reported cases of spontaneous regression of this tumor may be inaccurate),[2] tumors possibly totally removed by curettage or biopsy, some cases reported in foreign journals on which we are awaiting translations, certain cases obtained by personal communication on which more information has been requested, and finally the lymphomas which have not yet been surveyed.

In Table 1 the 90 collected cases of probable spontaneous regression of cancer are tabulated according to the type or location of tumor involved. Spontaneous regression of cancer occurred most frequently in neuroblastoma (19 cases), malignant melanoma (11 cases), chorio-epithelioma (nine cases), carcinoma of the bladder (nine cases), and carcinoma of the breast (eight cases). Spontaneous regression was also found in soft-tissue sarcoma (five cases), carcinoma of the uterus (four cases), carcinoma of the stomach (four cases), carcinoma of the colon or rectum (three cases), hypernephroma of the kidney (three cases), carcinoma of the oral cavity (three cases), osteogenic sarcoma (three cases), carcinoma of the ovary (two cases), metastatic carcinoma with primary site unknown (two cases), and one case each of carcinoma of the liver, carcinoma of the larynx, carcinoma of the lung, carcinoma of the pancreas, and carcinoma of the thyroid.

TABLE I

TABULATION OF COLLECTED CASES OF SPONTANEOUS REGRESSION OF CANCER. (MALIGNANCY CONFIRMED BY HISTOLOGIC EXAMINATION)

TYPE OR LOCATION OF CANCER	NO. OF CASES
Neuroblastoma	19
Malignant Melanoma*	11
Chorio-epithelioma	9
Bladder	9
Breast	8
Soft-tissue Sarcoma	5
Uterus	4
Stomach	4
Colon and Rectum	3
Hypernephroma	3
Oral Cavity	3
Osteogenic Sarcoma	3
Metastatic Carcinoma, primary, unknown	2
Ovary	2
Liver	1
Larynx	1
Lung	1
Pancreas	1
Thyroid	1
	90

* Does not include spontaneous regression of malignant melanomas of the eye.

Over 50 per cent of the collected cases of spontaneous regression of cancer occurred in four types of cancer, i.e. neuroblastoma, malignant melanoma, chorio-epithelioma, and carcinoma of the bladder. Despite the frequency of occurrence of carcinoma of the breast and carcinoma of the uterus, only eight cases of the former and four cases of the latter were accepted as probable examples of spontaneous regression of cancer. Similarly despite the relative commonness of cancer of the gastrointestinal tract, only four cases of carcinoma of the stomach and three cases of carcinoma of the colon or rectum met the criteria for spontaneous regression of cancer.

CHORIO-EPITHELIOMA

Although ten per cent of the cases of spontaneous regression of cancer occurred in chorio-epithelioma (choriocarcinoma), this type of tumor is so extremely rare that in some relatively large clinics no case has ever been seen.

Since chorio-epithelioma arises from chorionic (trophoblastic) tissue, with the possible exception of rare cases associated with teratoma, it always occurs during or following a pregnancy, regardless of whether the pregnancy terminates in a full term labor, abortion, or hydatiform mole). Schumann and Voeglin,[17] have estimated the incidence of chorio-epithelioma as 1:13,850 pregnancies (0.00007 per cent). Chorio-epithelioma has been estimated by Sunde[23] to occur in 5 per cent of hydatiform moles and hydatiform mole is generally considered to occur in 1:2,000 pregnancies. Fifty per cent of the cases of chorio-epithelioma are usually considered to occur in hydatiform moles.

Chorio-epithelioma differs from all other cancers since it is a tumor of one individual (the fetus) growing in the tissues of another individual. Thus, chorio-epithelioma is in effect an implantation type of cancer and the regressive behavior sometimes observed with this tumor may possibly be compared to the regression of transplanted tumors in a genetically constant strain of experimental animals.

As Novak[14] has pointed out, the early trophoblastic tissue of normal pregnancy demonstrates many characteristics very similar to that of cancer. It infiltrates and destroys the material (uterine) tissue and even exhibits a physiological type of metastases in the form of villous and trophoblastic dissemination to the lungs. For example Schmorl[19] found embolic chorionic villi present in the lungs in 80 per cent of normal pregnancies. These embolic chorionic villi are destroyed by the body and absorbed, according to Fraenkel,[6] by an anti-syncytial antibody or cytolysin hormone that exists in the blood stream of pregnant women. Fraenkel has shown that this lytic substance is not present in patients with chorio-epithelioma. In any event, the restriction of trophoblastic invasion of the uterine tissues and regression of embolic trophoblastic tissue in normal pregnancy can probably best be explained on the basis of a local and systemic defense mechanism. Johnson[19] has suggested that perhaps patients with regressive changes of chorio-epithelioma were able to produce this lytic agent.

NEUROBLASTOMA

Neuroblastoma (sympathicoblastoma) in which regression occurred most frequently (19 cases) in this collected series, is found in infancy and childhood and originates from tissue from which the adrenal medulla or other portions of the sympathetic system develop. According to Koop et al[11] approximately 15 per cent of all childhood cancers are neuroblastomas.

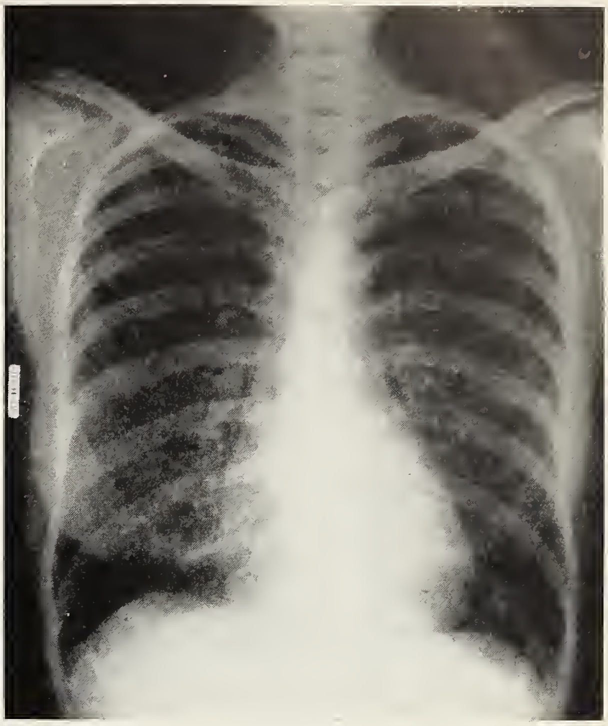

Figure 1

Chest x-ray, June 30, 1954, two small soft tissue densities in the right mid-lung field suggestive of metastatic chorio-epithelioma.

In the majority of patients with untreated neuroblastomas, metastases develop soon and there is a rapid downhill course eventuating in death within a few months. Because of the rapid growth of the tumor, a child well 12[8] to 14[11] months after treatment with no recurrence by physical examination or roentgenographic studies may probably be considered as cured. The tumor may undergo spontaneous hemorrhage and necrosis and regress completely after only biopsy or incomplete surgical removal or the tumor may undergo maturation to become a benign ganglioneuroma.

REGRESSION OF PRESUMPTIVE METASTASES AS DIAGNOSED BY X-RAY

Regressions of presumptive metastases as diagnosed only by roentgenograms have not been included in the previous tabulation. As previously mentioned, the validity of cancer regression in these cases is subject to some doubt since the malignant nature of the lesions demonstrated by roentgenograms is not confirmed by histologic examination. It is assumed that since the primary lesion's malignancy has been confirmed by histologic examination, the subsequent development of pulmonary or osteogenic roentgenographic findings consistent with metastatic cancer are in all probability cancer. Regressions of this nature were most commonly

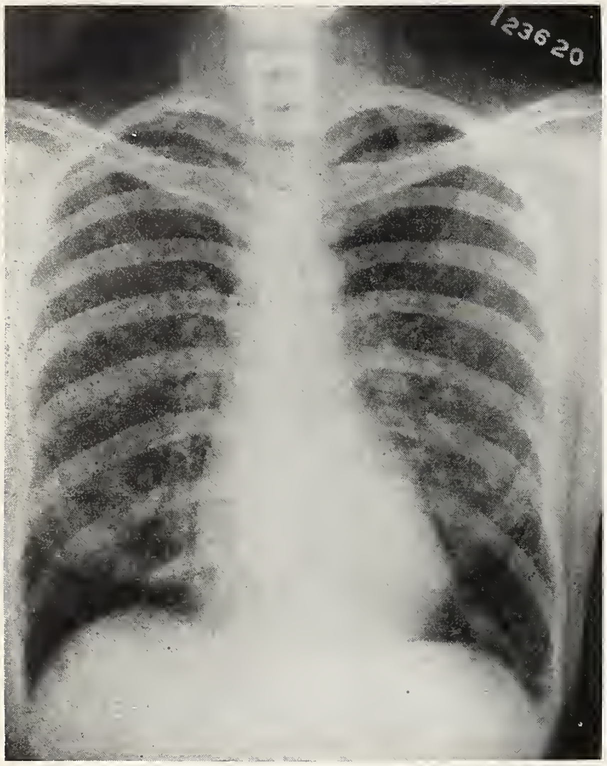

Figure 2
Chest x-ray, August 13, 1954, showing increase in pulmonary lesions throughout both lung fields.

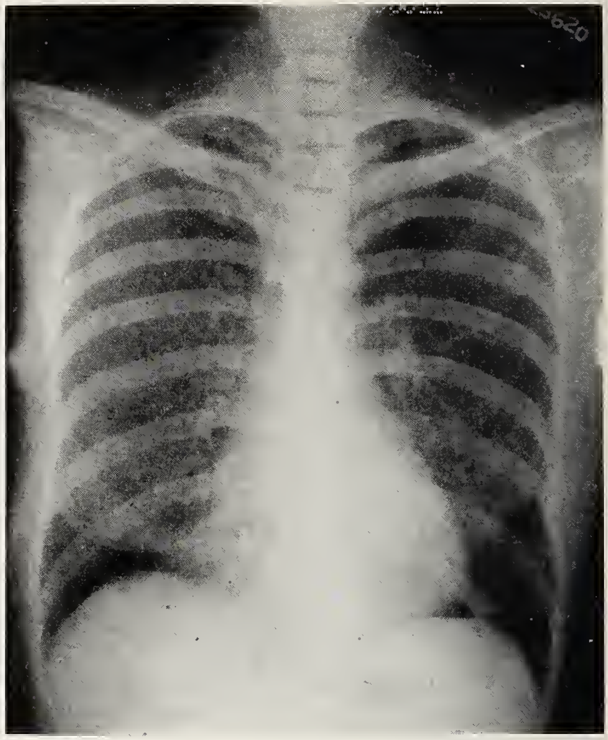

Figure 3
Chest x-ray, August 1955, normal and clear lung fields.

noted in chorio-epithelioma, malignant melanoma, osteogenic sarcoma, and hypernephroma. The findings of characteristic hormonal findings (gonadatrophic hormone tests) with presumed chorio-epithelioma metastases or characteristic pigment excretion in the urine (melanogens) with presumptive metastatic malignant melanoma reinforce the validity of regression of cancer when the roentgenographic and hormonal or chemical findings appear and disappear concurrently.

We are indebted to Dr. William C. Beck[1] for the record of a patient illustrative of this category.

A 43 year old white female was admitted to the hospital in April, 1954 with a history of abdominal cramps and vaginal bleeding of several hours duration. The patient's last menstrual period was in January, 1954. Physical examination revealed a uterus slightly larger than the expected period of gestation. Curettage was performed, and a large amount of cystic material was obtained which on pathologic examination was interpreted as a typical hydatiform mole. A quantitative Friedman test was performed the day after curettage and was positive in a dilution of 1-100. At the end of ten days a second curettage was performed. This time several additional cystic lesions were removed from the uterus. The tissue was interpreted by the pathologist as consisting of necrotic decidua and late secretory phase of endometrium without evidence of residual mole. Friedman test was performed one week later and found to be positive in 1-100 dilution. The patient's uterus appeared to be of normal size and the patient was discharged to return in approximately two weeks.

The patient returned on May 12 and a thorough curettage was performed which did not reveal any tissue suggestive of residual mole. The Friedman test, however, was still positive. The patient did not return for examination until June 21, since she had been feeling well and, accordingly, did not keep her earlier appointment for follow-up examination. At this time, the uterus was enlarged to two and one-half times normal size and felt very irregular. The Friedman test was still positive in 1-100 dilution. On June 25, a total pan-hysterectomy was carried out. There was no evidence of palpable metastatic nodes within the abdomen. X-ray of the chest at this time did not reveal any abnormalities. The pathologic report was chorio-epithelioma.

On June 30, examination of the pelvis revealed no evidence of metastatic lesions. However, x-ray examination of the chest at this time revealed two small soft tissue densities in the right mid-lung field suggestive of metastatic chorio-epithelioma (Figure 1). Friedman test was again positive in a dilution of 1-100. A repeat chest roentgenogram on July 6 disclosed the same lesions with suggestive evidence of additional lesions in right and left upper lobes.

On July 31, 1954 the patient returned to the hospital because of vaginal bleeding and physical examination revealed an implant on the vaginal wall which was removed on August 3. The lesion was diagnosed histologically as metastatic chorio-epithelioma. Chest film on August 13 demonstrated considerable increase in pulmonary lesions throughout both lung fields. (Figure 2)

On August 5, external radiation to the pelvis was begun.

Subsequently it was decided that x-ray therapy over the chest might be worthwhile and that probably this could best be administered through a cobalt bomb. However, in October roentgenographic examination of the chest showed definite regression in the pulmonary lesion and accordingly it was decided not to give cobalt bomb therapy. In November 1954, the Friedman test was negative. In August 1955, x-ray examination of the chest revealed normal and clear lungs (Figure 3). The Friedman test was negative. The patient was last seen in February, 1956 at which time she appeared in good health with no evidence of recurrence. The Friedman test was negative and roentgenograms of the chest showed normal lungs.

Levison,[13] in 1955, reported a striking case of a 60 year old male who had excision of the right eye performed in February, 1951 for malignant melanoma of the choroid. The patient was then seen in February 1953 at which time there was no clinical evidence of recurrence and the liver was not palpable. However, a roentgenogram of the chest revealed multiple small opacities at the base of the left lung. Melanogens were demonstrated in the urine by chemical tests and accordingly the patient was considered to have pulmonary metastases. No treatment was given. Re-examination on July 8 showed disappearance of the pulmonary lesions and no melanogens were demonstrated in the urine. Since then, repeated clinical roentgenographic studies have shown no evidence of recurrence and no melanogens have been demonstrated in the urine.

PROLONGED ARREST OF CANCER

The factors responsible for prolonged cessation of growth of cancer without actual regression of tumor may be closely related to those responsible for spontaneous regression of cancer. Prolonged arrest of growth of cancer (primary, residual, recurrent, or metastatic) in our studies has been most commonly found to occur in carcinoma of the breast, carcinoma of the thyroid, and carcinoma of the prostate.

PROLONGED LATENT PERIOD BETWEEN PRIMARY TUMOR AND METASTASES OR RECURRENCE

Prolonged latent periods between the development of the primary cancer and evidence of metastases or recurrence have been noted particularly in carcinoma of the breast and hypernephroma. For example, Sklaroff and Sterling[18] have recently reported a patient who developed a local recurrence thirty-four years after radical mastectomy for carcinoma of the breast. They cite other cases of carcinoma of the breast from the literature with latent periods of 41 years, 40 years, and 22 years. Similarly, recurrences have been reported 11 years after removal of hypernephroma.[24]

The biologic processes which cause cancer cells to remain quiescent over periods of many years may be related to those responsible for the spontaneous regression of cancer.

POSSIBLE FACTORS RESPONSIBLE FOR SPONTANEOUS REGRESSION OF CANCER

1. *Endocrine influences.* Endocrine influences may be responsible for spontaneous regression of cancer of the breast for example. The palliative effectiveness of bilateral oophorectomy, adrenalectomy, or hypophysectomy in the treatment of some cases of metastatic carcinoma of the breast is well established. Destruction of the adrenals, ovaries, or hyophysis by metastatic tumor has been observed,[4, 15] and it is conceivable that the resultant hormonal alterations may be responsible for the spontaneous regression noted in some of the cases of carcinoma of the breast.

2. *Unusual sensitivity to inadequate radiation or other therapy.* Because in certain cases in the collected series small amounts of radiation or other therapy were utilized, it is possible, but probably unlikely, that such treatment, although usually inadequate, might be responsible for the regression because of unusual sensitivity of the tumor. However, the dosages and the response during the period of treatment do not support this thesis in these collected cases. An interesting case reported by C. Marshall Lee[12] is illustrative.

A male child was found to have an enlarged liver palpable down to the right iliac crest and a questionable mass was felt in the left upper quadrant at the age of 4 months. At the age of 5 months a lump in the skull near the left eye and left facial paralysis were noted. Skull roentgenograms showed a presumed metastatic lesion in the right temporal region and the liver margin was demonstrated at the right iliac crest both clinically and by flat roentgenogram of the abdomen. At the age of six months biopsy of the right temporal mass and exploratory celiotomy revealed the liver to be filled with metastatases in both right and left lobes. The primary tumor arose from the right adrenal with extension into the right kidney and roots of the mesenteries.

The abdominal biopsies as well as the biopsy from the temporal mass were diagnosed histologically as neuroblastoma (sympathicoblastoma). No other treatment was given except for 1.0 mg. daily injection of triethylene melamine for three days. (Roentgen therapy was not utilized because the patient's monozygotic twin who also had neuroblastoma had had a poor response to radiation).

At the age of 20 months there were palpable skull metastases and x-ray evidence of metastases in most of the long bones and also the mandible. The right testicle was enlarged suggesting metastases.

Four years after biopsy of the lesions the child was well and strong with no evidence of adrenal tumor mass, right testicular mass, or bony metastases to the skull, long bones, and mandible.

It seems extremely unlikely that the regression in this case was a long delayed response to the three injections of triethylene melamine.

3. *Fever and/or acute infection.* These factors have frequently been suggested as of importance in cases of spontaneous regression.

Ferguson and Black,[5] in 1954, reported a case of a locally inoperable carcinoma of the colon which disappeared spontaneously.

Their patient was a 45 year old male who was admitted to the Mayo Clinic in October 1951 because of aching left lower abdominal pain and persistent cutaneous sinuses just above the left iliac crest which were secondary to surgical drainage of a tender fluctuant mass in the left flank some months previously. In April 1951 the colon had become acutely obstructed and a colostomy had been performed. At the time of operation a hard, nodular, irregular, mass was found involving the lower portion of the descending colon. The mass was solidly fixed to the bony pelvis and was considered inoperable.

Examination at the Mayo Clinic in October 1951 revealed a tender, hard, poorly-defined mass in the abdomen just medial to the left anterior superior iliac spine. Radiological examination of the colon (barium enema) revealed a filling defect of the mid-portion of the descending colon. Curettage of the sinus yielded masses of tissue which on microscopic examination proved to be adenocarcinoma probably of intestinal origin.

The lesion was considered inoperable and accordingly 3000 roentgens of x-radiation were administered through anterior, posterior, and lateral fields over a period of 12 days.

The patient returned to the Mayo Clinic in September 1953 requesting closure of the colostomy. The sinuses had healed one month after his discharge in November 1951. The mass in the left lower quadrant had disappeared.

Because of the marked improvement in the patient's condition, re-exploration of the abdomen was performed. There was no evidence of a lesion in the colon. A segment of the colon approximately 6 centimeters in length was absent. A wedge shaped segment of the mesentery was also missing. The two blind ends of the colon were mobilized and excised. No tumor tissue was noted on microscopic examination.

Because of the usual radio-resistance of adenocarcinomas of the colon, Ferguson and Black were of the opinion that the disappearance of the tumor did not result from the radiation but that more likely the colon segments and mesentery became infarcted and were absorbed.

4. *Allergic or immuune reaction.* Allergic or immune reaction with destruction of tumor cells might be a factor in some cases. Stewart[20] has reported a case of myosarcoma which might be included in this group.

The patient had an uterine tumor which was inoperable with spread throughout the pelvis and mesenteries. Biopsy was performed and the patient was treated by radium bomb. There was, however, no evidence of radiosensitivity, and the mass did not decrease. Just before the completion of treatment, however, a dramatic change occurred. The patient developed high fever, urticarial rash, high eosinophilia and within a few days lost large amounts of tumor tissue and ascitic fluid. The tumor disappeared completely. Approximately five years later the patient had a small amount of radium for a lesion of the cervix and repeated the hypersensitive reaction. The patient was known to be alive and well ten years after the disappearance of the tumor.

The possibility of development of immunity to cancer is a rich field for speculation. While immunity to cancer can be induced in experimental animals,[21] attempts to produce immunity to cancer in humans have not been successful to date.[22] In recent years, however, Graham and Graham[7] have demonstrated the presence of antibodies to cancer in 12 of 48 patients with gynecological cancer.

5. *Interference with nutrition of the cancer.* Rohdenburg[16] in 1918 suggested that during incomplete removal of malignant tissue the blood supply of the remaining tumor may be so impaired that death of the residual tumor occurs. Likewise, it is conceivable that local or general disturbances of the body metabolism might adversely affect the growth or viability of cancer.

Hall[9] in 1908 reported a case which probably falls within this category.

The patient, a 45 year old female, had a left nephrectomy performed. Examination of the surgical speciment revealed a tumor measuring 6 x 4 centimeters completely separated from the kidney substance and lying free in a cavity in the upper pole of the kidney. There was no vascular connection with the kidney. The microscopic picture was typical for hypernephroma, although the nuclei of the cells took the stain poorly and the tumor tissue was presumed to have been dead at the time of removal. The kidney substance however stained distinctly.

6. *Removal of carcinogenic agent.* The regressions of carcinoma of the bladder which were noted in this study occurred following divergence of the urine from the bladder by ureterosigmoidostomy. This suggests that a carcinogenic agent might have been present in the urine of these patients and that with the removal the susceptible bladder mucosa from the carcinogenic stimulation the bladder tumors healed.

7. *Complete surgical removal of cancer.* Some of the cases which subsequently underwent spontaneous regression had had partial surgical removal of the tumor. It is possible that the remaining tissue was only inflammatory rather than malignant. It seems more likely, however, that if there was microscopic evidence of cancer cells at the edge of the resected specimen that at least a portion of the residual tumor was cancerous.

8. *Incorrect histologic diagnosis of malignancy.* The accuracy of differentiating between benign and malignant tumor must be acknowledged to be a possible source of error in the assessment of cases of spontaneous regression of cancer. However, where possible we have requested the slides on which the diagnosis of malignancy was originally made in these collected cases so that we might submit the slides to two other independent pathologists for examination. When there has been disagreement as to the malignancy of the tumor tissue, the case

has not been accepted as an example of spontaneous regression of cancer.

THE SIGNIFICANCE OF SPONTANEOUS REGRESSION OF CANCER

Evidence of spontaneous regression of cancer is significant from several standpoints.

1. The existence of spontaneous regression of cancer, in at least some cases, supports the concept of biologic control of cancer and reinforces the hope that a more satisfactory method of treating cancer than surgery and/or radiation may be found in future years.

2. The occurrence of spontaneous regression of cancer demonstrates the need for caution in the assessment of the value of chemotherapeutic and unorthodox therapeutic measures in isolated "cures" of cancer.

3. The possibility of spontaneous regression of cancer must be considered in the evaluation of the prognosis of certain cancers.

4. The remote possibility of spontaneous regression of cancer may be of some psychotherapeutic value in the patient with cancer which is not amenable to surgical and/or radiation treatment. (The statistical possibility of spontaneous regression occurring in any single case of cancer is so extremely small, however, that any patient would be most foolish to reject orthodox methods of treatment in the hope that his cancer would regress spontaneously.)

SUMMARY

1. An evaluation of more than 1,000 cases of spontaneous regression of cancer published in the world medical literature or obtained by personal communication has been made. To date, only 90 cases have been considered by us to have adequate documentation, including histologic confirmation of the diagnosis of malignancy, to accept as probable examples of spontaneous regression of cancer.

2. The clinical evidence of spontaneous regression of cancer is summarized.

3. The 90 cases of probable spontaneous regression of cancer are tabulated according to type or location of tumor. Spontaneous regression of cancer was most commonly noted in neuroblastoma, malignant melanoma, chorio-epithelioma, and carcinoma of the bladder.

4. Possible factors responsible for spontaneous regression of cancer are discussed. These factors include: endocrine influences, unusual sensitivity to inadequate radiation or other therapy, fever and/or infection, allergic (immune) reactions, interference with nutrition of the tumor, and removal of the carcinogenic agent.

5. The significance of evidence of spontaneous regression of cancer is discussed.

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Thrombotic Thrombocytopenic Purpura Associated With Surgery

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Since the first published case (1925)[11] of the disease commonly known as thrombotic thrombocytopenic purpura (TTP), the bulk of the literature has been concerned primarily with the nature and pathogenesis of the vascular occlusions. For a number of years the occlusive material was considered to be pure platelet thrombi, chiefly because the disappearance of free platelets from the peripheral blood coincided with the presence of occlusions, and secondly, because of the staining characteristics in Giemsa preparations seen in the first definitive work on the disease in 1936.[1]

It is now known that such a staining specificity does not exist, and other authors consider the intravascular material to be fibrin, plasma, and platelets, or a combination of all of these. The latest such report is that of Craig and Gitlin[4] who made use of specific reactions with fluorescein-labeled rabbit antihuman fibrin antibodies to conclude that the thrombi in thrombotic thrombocytopenic purpura "are composed of a saline-insoluble derivation of fibrinogen, or fibrin." The accent in recent years has been on the possibility that thrombotic thrombocytopenic purpura was a manifestation of hypersensitivity[3,5,7,8,9,13] and cases associated with disseminated lupus erythematosus and other of the collagen disease group have been frequently reported.[5,6,8,14,16] We have not been able to find in the literature a case of TTP developing in association with surgical procedures, and it is with this in mind that the following cases are presented.

CASE 1

A 77 year old, white female entered Hartford Hospital on November 13, 1956, with a chief complaint of occasional dull epigastric pain and nausea of three months' duration. The past history included diverticulitis in 1949, a probable pulmonary infarct in 1950 following thrombophlebitis of the right leg, and tic doloreux in 1950 for which she received an alcohol injection of the 5th nerve. During these admissions she had complained of bronchial asthma, and in January, 1955 she was treated in another hospital for acute tracheobronchitis.

The patient had been well since her previous admission until two or three months ago at which time she began to have occasional epigastric pain, often radiating to the back. This had become worse over the past two weeks during which time she had been nauseated and unable to take anything but liquids. There had been occasional vomiting of clear fluid. She had had no jaundice, dark urine, or acholic stools, but she did have a long history of intolerance to fatty foods.

On physical examination her temperature was 99°, pulse 80, and blood pressure 140/80. The patient was an obese, elderly female. The positive physical findings included slight narrowing of the arterioles on ophthalmic examination, a diffusely enlarged right lobe of the thyroid gland, coarse bronchial rhonchi in both sides of the chest, and a minimally enlarged heart with regular rhythm but with premature beats. The liver was felt two fingerbreadths below the right costal margin, and there was tenderness in and to the right of the epigastrium. There was mild calf tenderness bilaterally, while the neurological examination revealed active normal reflexes and anesthesia of the right cheek.

Laboratory findings: preoperative—hematocrit, 45; WBC, 10,300, with a differential of 82 polys, and 18 mononuclear cells. There was no description of the blood smear, and so no mention of platelets. (On the three previous admissions, hematocrits had been 41-45; WBC, 5,300-8,000; and platelets described as "adequate" on each of three smears.) The only abnormal blood chemistry finding was that of a bilirubin of 2.0 mgm per cent, indirect primarily. The urine examination was negative except for a four plus albumin content. Cholecystogram showed a stone visible within a normal functioning gall bladder.

On November 23 a cholecystectomy was performed under pentothal, cyclopropane, and anectine anesthesia. At the conclusion of the procedure, two minutes after extubation the patient became cyanotic, and was treated with 20 mgm of anectine intravenously and insufflation. She breathed spontaneously, then became cyanotic again with the appearance of chest rales, but this was again rapidly relieved by anectine and oxygen. She was seen shortly thereafter by a medical consultant, at which time the blood pressure was 120/70, pulse 86, and respirations 20. The lungs were found to be clear except for coarse rhonchi at the right base and the left upper lung field. The heart was thought to be slightly enlarged and there was regular sinus rhythm. It was the physician's impression that cardiac failure was not present and that the above episode was due to intrinsic disease of the trache bronchial tree with possible aspiration superimposed. The patient recovered from this disturbance and by the second postoperative day was doing well and was ambulatory. She was receiving crysticillin, 300,000 units b.i.d., and oral feedings.

From the Department of Pathology, Hartford Hospital.

On the fifth postoperative day her temperature, which had been normal, was increased to 101°, and she complained of anorexia and nausea and there was slight abdominal distention. The examination of the wound was negative, and the drain was removed. That evening the patient was seen because of "strange behavior and confusion". At this time it was noted that the left side of the body was shaking slightly. In addition to considerable confusion, she was occasionally vomiting. She talked with difficulty, but understood well. Her blood pressure was 120/90; her pulse, 120; and respirations, 20. Examination of the eyes revealed that the pupils were constricted tightly with normal extra-ocular movements. There was noted a left hemianopsia, deviation of the tongue to the left, and difficulty in swallowing. The chest was clear to percussion and auscultation, and the examination of the heart showed a rapid rate with occasional premature beats; no murmurs were heard. The abdomen was essentially negative. There was extreme weakness of the left arm and leg and absent pain sensation of the entire left side of the body. All reflexes were decreased on the left and in addition there was an equivocal Babinski on that side. Her skin and sclerae appeared somewhat icteric. The following morning the patient was in a coma and unresponsive, with a normal blood pressure and pulse. She expired that morning.

Laboratory findings during the last two days of life: hematocrit 25; WBC 13,775; with a 77/23 differential including 2 per cent myelocytes and occasional nucleated red cells. The platelets were severely reduced. The bilirubin was now 3.8 mgm per cent, again indirect, prothrombin time 40 per cent of normal, and NPN 101 mgm per cent.

Pathological report of gall bladder: Gross—An 8 cm. gall bladder with a slightly thickened wall and smooth mucosa contained a 1.5 cm. roughly spherical black, smooth stone within the lumen. Microscopic—There was moderate chronic inflammatory reaction in a slightly thickened wall and Aschoff-Rokitansky sinuses were occasionally seen. No vascular lesions were seen.

Postmortem findings: Gross—There were no petechiae nor ecchymoses in skin. The wound was clean. The serous cavities were unremarkable. The heart weighed 320 grams and revealed diffuse epicardial and myocardial hemorrhages which were most striking in the left ventricle. Except for moderate calcification in their walls, the coronary arteries were widely patent; the valves were all thin and delicate. The lungs were entirely normal with neither congestion nor consolidation. The gastrointestinal tract was negative. The spleen, which weighed 120 grams, and the pancreas were normal. The liver weighed 1250 grams and was unremarkable. The gall bladder bed contained a small amount of relatively fresh blood clot. The common duct was not dilated and contained no stones. Both adrenals exhibited diffuse, subcapsular hemorrhages. Each kidney weighed 200 grams. The capsules stripped with some difficulty and the surfaces were scarred, pale, and swollen with multiple petechial hemorrhages. The brain weighed 1000 grams and contained no hemorrhages, infarcts, nor other obvious changes. A postmortem blood culture was sterile.

Microscopic: Heart—Multiple small focal hemorrhages were seen in the myocardium. Near these were vessels of arteriolar size which were in part or completely occluded with hyaline acidophilic thrombi (Figure 1A). In some instances the thrombi appeared to be covered or capped by thickened endothelial cells with the thrombus continuous with a portion of the underlying wall. This suggested an intramural origin of the lesion which had caused invagination of the overlying endothelium. There was a remarkable lack of inflammatory reaction surrounding the lesions. These thrombi stained intensely red with the periodic acid-Schiff technique. Lungs. Prominent acidophilic basement membrane, hypertrophied smooth muscle and hydropic mucosal cells were seen in the medium-sized bronchi. Although there was no accumulation of eosinophils, the changes were otherwise characteristic of bronchial asthma. Liver: Slight fatty changes were present, but no vascular occlusive lesions were seen. Pancreas: Fresh thrombi were seen similar to those in the heart. Spleen: A small infarct adjacent to an arteriole with a thrombus was present. Kidneys: Moderate arteriolarsclerosis was seen and also the above described thrombi. Adrenals: Focal hemorrhages, subcapsular in location, were present in the vicinity of thrombi containing well defined, overlying endothelial linings. One vessel showed marked dilata-

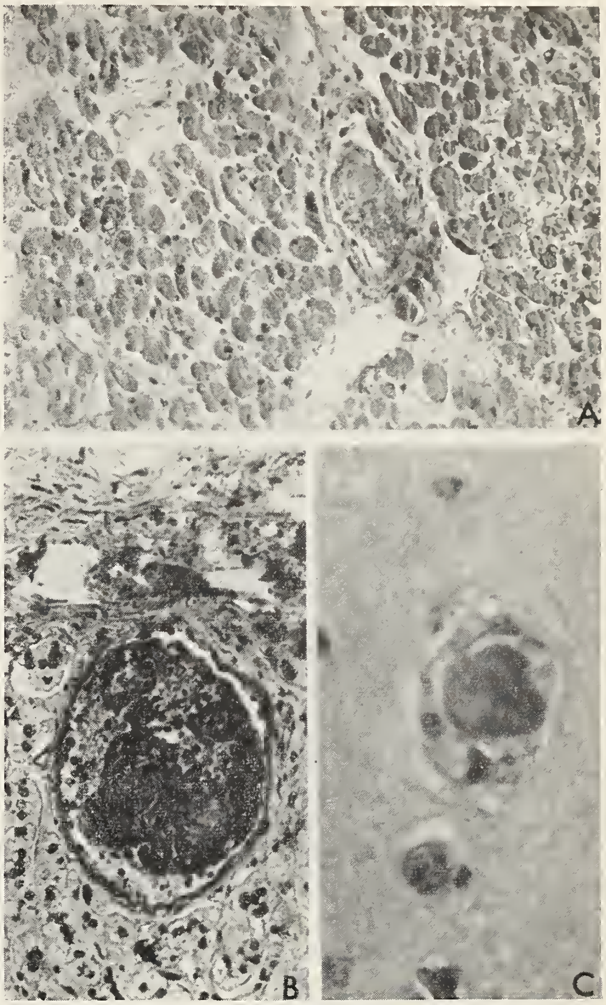

FIGURE 1

A. Myocardium with an arteriole partly occluded by hyaline acidophilic thrombus. B. Adrenal with occluded vessel showing marked dilatation. C. Brain demonstrating fresh occlusion in small vessel.

tion and thinning of its wall (Figure 1B). In another area of an adrenal, serial sections revealed that the vascular lesions occurred at the arteriolar-capillary junction just after the muscular arterioles penetrated the capsule. Figure 2A, B, C). Brain: The same occlusions were observed scattered in capillaries. As with thrombi elsewhere, these were fresh with no hint of organization (Figure 1C). Surrounding some thrombi were focal hemorrhages. Bone marrow: Normal cellular marrow was seen with megakaryocytes, normal in number and in differentiation. No definite thrombotic occlusion was noticed.

CASE 2

(McCook Hospital A 18586)—A 40 year old, Negro male, who had never been hospitalized before, was admitted on August 5, 1956 with a fractured left ankle resulting from a fight. The only positive physical finding was a compound fracture-dislocation of the left ankle.

Laboratory findings: On the day of admission there was an hematocrit of 47, WBC, 5,700, with a normal differential and the RBC were described as "normal". No mention of platelets was made. NPN and sugar were normal. The Kolmer cardiolipin complement fixation test was reactive in a dilution of 1:16.

Under spinal anesthesia the fracture was reduced, the wound irrigated with normal saline and penicillin and streptomycin solution. The wound was debrided and dressings and cast applied. He was placed on penicillin and streptomycin b.i.d. and also received tetanus-gas gangrene antitoxin. The patient had an immediate uncomplicated course. One week afterwards he began to vomit, particularly in the morning. Three days after this he suddenly became confused and disoriented and showed signs of hemiparesis on the left side. He did not respond to local stimulus and had intermittent conjugate deviation of the eyes to the right; he was entirely flaccid on the left, but with equal bilateral reflexes. There was an equivocally positive right Babinski. The pupils reacted to light and were equal. A short time later he began to have right facial convulsions, then extending over the entire body. At the same time there were tonic twitchings on the left side of the face and also left extremities. When the convulsions ceased, the left-sided paralysis again ensued. It was now noticed that his sclerae were icteric. His temperature, which had been normal, suddenly went to 103° rectally. He began to have difficulty with respirations, showing a Cheyne-Stokes type of breathing. He expired shortly thereafter.

Laboratory findings during the last two days of life: No hematological investigation performed. Alkaline phosphatase, cholesterol and esters, and potassium were normal; serum cl 92 mEq/L. and sodium 125 mEq/L. The prothrombin time was 32 per cent of normal and NPN was 49 mgm per cent. The spinal fluid had a normal sugar and was negative for cells. The urine contained 3+ albumin, disintegrated red blood cells and ocacsional white cells.

Postmortem findings: Gross—Sclerae were noted to be slightly icteric. Otherwise, the external examination was unremarkable except for the plaster cast on the left leg. On opening the body, the serous cavities were normal, but for a few bilateral apical pleural adhesions. The heart weighed 460 grams. The coronary arteries showed no sclerosis. The epicardial and endocardial surfaces revealed numerous minute petechial hemorrhages. The myocardium did not reveal any abnormalities, and the valves were normal. The lungs weighed 900 and 750 Grams, respectively, and this increased weight was reflected in pronounced edema. There was no consolidation, and the bronchi were normal. The neck organs were normal. Study of the gastrointestinal tract showed superficial erosions of the gastric mucosa with fresh sanguinous-tinged material present here and down to the mid jejunum. The contents of the large bowel were normál. The spleen weighed 150 grams and was unremarkable, as was the pancreas. The liver weighed

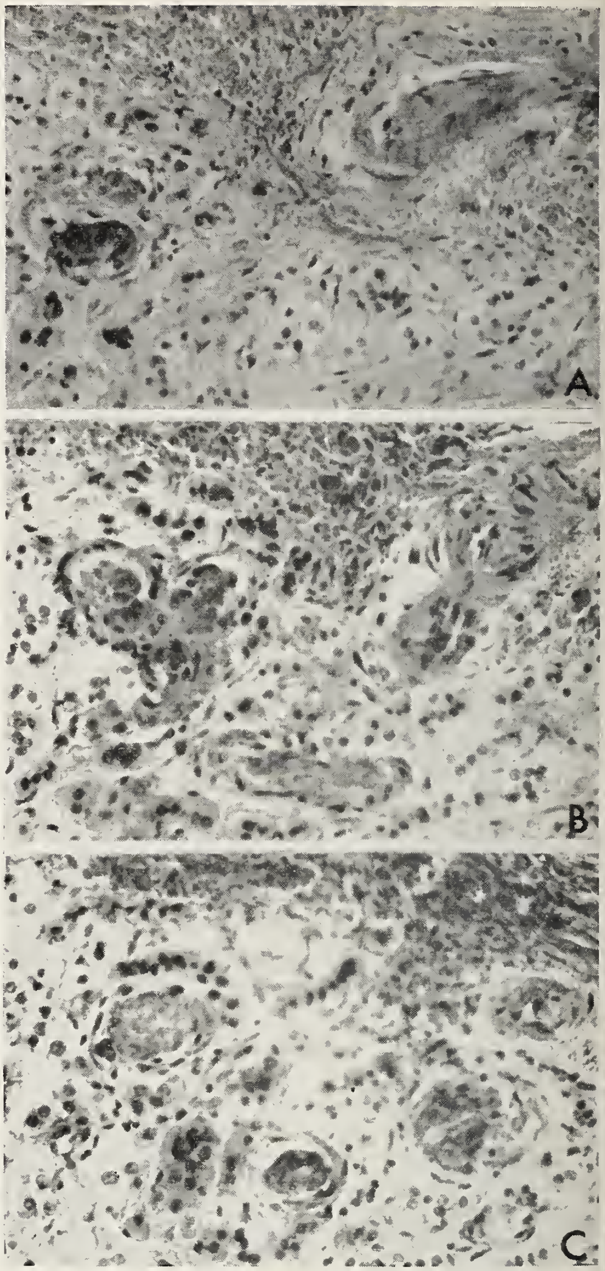

Figure 2A, B, C
Serial sections of adrenal showing occurrence of thrombotic lesion at arteriolar-capillary junction.

1900 grams and had a normal surface and appearance on cut section. The gall bladder contained no stones and the bile ducts were patent. The adrenals were unremarkable. The kidney surfaces were smooth and the cortex and medulla well demarcated. The bladder revealed a few mucosal petechiae. Upon removing the plaster cast, the left ankle fracture was seen in its reduced position with the overlying skin disruption exuding a slightly purulent exudate (culture-sterile). The skull was normal without fractures. There was no evidence of hemorrhage outside or within the brain which weighed 1200 grams, and it was essentially normal in appearance.

Microscopic—heart: Small arterioles were seen to contain numerous thrombi having an eosinophilic, amorphous appearance. In several instances in which the vessel lumens were only partially occluded, endothelial cells were seen to cover the thrombi and appeared enlarged (Figure 3A). Similar thrombi were visible in the *stomach, kidneys, pancreas* (Figure 3B) and *brain* (Figure 3C). Here small hemorrhages were noted adjacent to the occlusions.

DISCUSSION

Both the anatomical location and appearance of the lesions in these two cases are typical of thrombotic thrombocytopenic purpura. The thrombi occurred at arteriolar-capillary junctions and were not accompanied by necrosis nor inflammation, but focal hemorrhages only, in keeping with the findings of others.[1,14] Dilatation of the vessels associated with the occlusions was noted in several instances, particularly in the serial adrenal sections of the first case. This supports Meacham and Orbison's[10,12] conclusions that prior damage to the vessel wall is obligatory to cause dilatation at the site of thrombus formation, and thus the vascular damage is primary and not the result of the occlusion.

The clinical triad of thrombocytopenia, unusual neurological disturbances and hemolytic anemia, which has become the classical manifestation of the disease[1,9,14] was present in both cases. It is particularly noteworthy that there was reduction in prothrombin levels in each. In the absence of severe liver damage or biliary obstruction, this suggests unusual *utilization* of prothrombin in the widespread clot formation observed in this disease. This observation has not been emphasized previously in reported cases.

It is also interesting that both cases developed in patients undergoing operation. Only one reference to surgical exploration in thrombic thrombocytopenic purpura is that of Symmers[15] and deals with an acute appendicitis which exhibited the classical described lesion of the disease and undoubtedly was the cause of the abdominal syndrome. In Case No. 1 the severity of the abdominal symptoms together with the presence of icterus prior to exploration suggest that the disease was already present, particularly when one considers the relatively mild changes in the gall bladder with the one large stone and no common duct abnormality. Section of the gall bladder, however, failed to demonstrate pre-existing lesions. The question of pancreatic involvement causing the symptoms of pain "often radiating to the back" is a real possibility. If this disease existed prior to operation, the procedure undoubtedly precipitated the fulminating fatal conclusion of the illness. In any event this could not have been of long duration since all of the changes seen were of an acute nature. If, on the other hand, the operation is connected with the exacerbation of the disease, the only unusual incident was the episode of anoxia occurring at the close of the procedure.

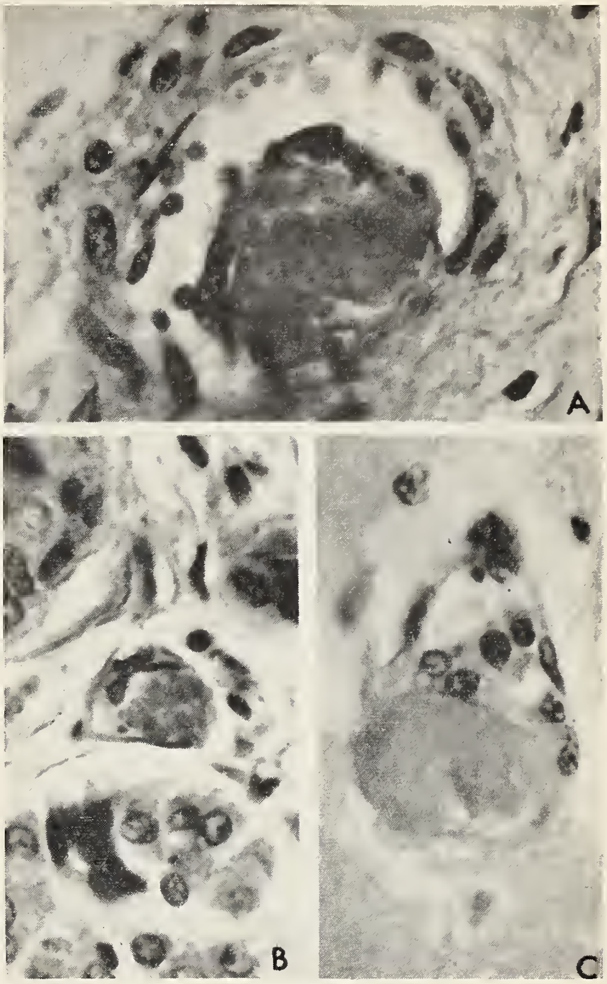

FIGURE 3
A. Myocardium demonstrating partial occlusion of vessel with hyaline thrombus capped by enlarged endothelial cells. B. Pancreas with thrombus. C. Brain with thrombus.

In the second case, the patient was entirely well prior to his accident, and again only fresh thrombi were noted. He received tetanus-gas bacillus antitoxin. Association of this and thrombotic thrombocytopenic purpura has been suggested in the report of a similar case.[2] Certainly there is no other obvious precipitating factor except for the trauma itself.

SUMMARY

1. Two cases of thrombotic thrombocytopenic purpura are presented in association with surgical procedures.

2. A brief discussion of some of the details of pathogenesis of the occluding thrombi is given with respect to the cases described.

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CONNECTICUT PHYSICIANS ART ASSOCIATION

Marnie

Second Prize—Art Exhibit,
Connecticut State Medical Society
Stratford, 1958.

Photograph by
WILLIAM I. GLASS, M.D.
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Adolescents and Their Medical Care

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This report is about adolescents, their medical needs, and medical care. It will make clear, I hope, how adolescents differ from younger and from older people, and why and how their care should differ from that which we offer to other people.

First, some comments should be made about adolescents themselves, for unless we have clearly in mind their characteristics and their needs, it will be impossible for us to formulate the type of care best suited to them. It is not enough for a doctor to know diseases, the causes of these diseases, or to know their symptoms and their treatment; it is just as important that he know the person who has the disease, to really understand his or her characteristics, attitudes, needs, and worries. All of these may even cause the patient's symptoms, and they can certainly modify an ailment's course.

ADOLESCENTS' OVERCONCERN WITH THEMSELVES

To know your patient is, of course, important in the care of all illness and in the care of all patients regardless of their age. But it is imperative in the management and treatment of adolescents; no other age group furnishes us with so good an opportunity to supplement our previous training in scientific thinking with practice in being thoughtful. The adolescent's nature literally forces you to pay attention to him or to her. If you do not, you will have mediocre results, broken appointments and discarded advice. One of the outstanding personality traits of adolescents is their unyielding over-concern with themselves. These young people are so intent on developing their own personalities, so alert to any efforts to force them into a mold, and so cool to any adult who does not show an interest in them, that it is impossible effectively to deal with them unless one recognizes this and pays just as much attention to them as one does to their symptoms. In dealing with them, therefore, it is important to remember that they are more aware of themselves, and that their developing personalities are more precious to them, than is the case with adults or little children. Therefore they will be more susceptible to your interest in them and much less able to yield or to compromise than is an adult or a child.

Adolescents' over-concern with themselves is not a trait we should want to eliminate even if we could, although admittedly it can be annoying to a hurried and harassed adult. Instead it is a trait we can utilize, if we will but recognize it and fit our tactics to it. Our interest in their activities, schooling, plans, and fears must be genuine. We must be more willing to listen than to advise. So we should see them alone, talk to them without the barrier of an intervening desk, let them tell their own story. In short, to meet this over-concern with themselves we must recognize them as young people trying to become adults, and for whom we have respect.

ADOLESCENTS' WORRIES

They have great interest in their bodies. Their blemishes may not seem very significant to a doctor, but the adolescent regards any one of them quite seriously and he wants adults to do the same. He does not look with favor on his physician either when they are exhibited or when they are casually shrugged off as inconsequential. Things wrong with his body are charged with emotion for the adolescent; the same defects usually are of little concern either to the child or to the adult. So we must examine them in private, and thoroughly, paying attention to what may seem to us to be minor.

Adolescents often become unduly worried by their rate or extent of growth and sexual maturation. The girl who is taller than her friends or who is flat-chested, the boy who is short or beardless or undeveloped, may become quite upset. It is not enough to tell these young people that these conditions will undoubtedly change, or that they should learn to accept themselves as they are. They need repeated reassurance, continued interest, and in most instances they need to learn the difference between being abnormal and not being average.

Sex is a disturbing matter to many adolescents. It takes time for them adequately to adjust their

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behavior and their thinking to this powerful drive. It is a confusing time for them, and not a few of their anxieties and therefore their symptoms grow out of their conflicts regarding sex. They need, and will benefit from, opportunities to talk about these worries to an understanding adult who will take them seriously, and who will not be quick to criticize or to advise.

THEIR NEED FOR SUCCESS AND CONFIDENCE

One of the most important things to remember is that adolescents need and are perpetually seeking prestige and recognition from their contemporaries. They badly want to win their own place in the sun. To do this often requires activities which are strenuous and which may be in conflict with the doctor's prescription of rest. Obviously at times rest may be necessary for the adolescent, but in general it should be much less frequently suggested than when dealing with younger or older people. Inactivity is not in the adolescent's tradition. It does not permit the failing student to get compensatory recognition at athletics or in any one of a number of other fields which his or her contemporaries feel to be important. In general one should think first of strengthening, rather than resting, those adolescents who complain of fatigue or a painful back. When advanced heart disease or a surgical procedure demands restriction of activity, careful thought should go into helping to provide some other appropriate activity.

CHANGING RELATIONSHIPS TO PARENTS

Nothing upsets parents and young people more than their changing relationships to each other. This is the time when the adolescent is attempting to achieve independence. When the parent is possessive or fearful and allows a son or daughter little freedom, and when by constant prodding suggestions and supervision, gives evidence that he or she has little confidence in this young person's ability to do for himself, there is usually an unhappy period of rebellion. To foster independence, to help to build confidence, to interpret the reasons for the parent's anxiety to these young people, and to persuade parents that their function is to produce an adult, not just a child, are important parts of the doctor's job. One further matter to remember in dealing with adolescents is their great capacity for change. If there is anything constant about them, it is their unpredictability.

OTHER SOURCES OF ANXIETY

Many matters are sources of anxiety in these young people and not infrequently we find that it is anxiety which is at the basis of a symptom. School very commonly upsets them. Just as his work can bring worry to an adult, so can school, upset an adolescent. All too frequently it seems to be school which gives them the pain, makes them sick or gives them the headache, so inquiring into school is a very important part of their medical history.

Religion, an upset home, death, and the misbehavior of fallen heroes confuse and disturb them. At this time when they are trying to stand on their own feet and to become independent, they need something strong to tie to, they need friends and acceptance, they need to be able to turn to strong stable, warm adults for whom they have respect and in whom they have confidence, and upon whom they can rely, but who will not dominate them.

THEIR MEDICAL CARE

Where are adolescents to go for their medical care? They themselves are not comfortable in clinics or offices either with little children or with adults, or with the elderly. Adolescents have some illnesses which are either confined to those years or which are very much more common during adolescence or which present a peculiarity which demands special consideration at this time of life. One immediately thinks of such conditions as acne, epiphysitis of the spine, athletic injuries, growth and developmental disorders, the psychological conflicts of adolescence, dysmenorrhea, menorrhagia, hypertension, obesity, epilepsy, ulcerative colitis, rheumatic fever. These and many others demand that one give thought to a patient's age in interpreting their significance, predicting their course, and planning their treatment.

No one would say that adolescents have been neglected by physicians, but on the other hand it is true that they have not had the benefit of the intensive sort of research or the training of physicians which have been directed toward other age groups. Yet it is important that they should have special attention for these young people are at a crucial point in their lives; they are at an age when expert care can make a great difference. When they are older, they will be less malleable, and conditions which might have easily been adjusted earlier in life will then have become refractory to even the most skillful and prolonged effort.

It has seemed wise to many of us to try to improve the quality of adolescents' medical care by establishing outpatient and bed care facilities exclusively for them. Here we can also offer physicians opportunities for intensive training and experience in the care of this age group, and a setting where we could increase their understanding of adolescents' personalities and of the factors in their emotional development. In such clinics it is also possible to develop research directed at the studies of matters pertaining both to the physiology and the pathology of these years. Fortunately a few such clinics have been established, and at least one such training course is now available.[8]

CARDIOVASCULAR PROBLEMS

We have recently reviewed some 4,000 young people whom we have seen in our unit, and in addition to having been impressed by the desirability of treating them in a clinic exclusively theirs, we have made a few observations about their real or suspected cardiovascular ailments. Over and over again we have noted how the adolescent dislikes being different, how he needs to carry on activities which will yield him recognition and build his confidence and how often these involve physical exertion of an intensity which is probably very near to the maximum which he will require in any part of his entire lifetime, how he cannot accept the thought of there being anything wrong with his body, and how he has become a different sort of person than he was as a child.

MURMURS

The adolescent's cardiovascular problems can be divided into three groups. The evaluation of a murmur discovered on routine physical examination is the most common reason for referring a patient of this age to us. The facts that the heart is normally at its peak of activity, that their chests are still thin, and that anxiety is quite high during these years, all contribute to make the physical signs of heart function, and the murmur, most obvious during these years. These young people deserve a careful examination, not only because a significant difficulty may be diagnosed and perhaps corrected, but more frequently so that unnecessary restriction and unnecessary worry may be avoided.

When their physical examination and x-ray show no chamber enlargement, no primary pulmonary vascular disease, no aortic or pulmonic stenosis with intact ventricular septum, and the electrocardiogram shows no ventricular strain, serious arrythmia, myocardial damage or hypertrophy, these young people, no matter how loud the murmur may be, should be completely reassured and allowed to be as competitive as their skill and general health will permit. As a matter of fact, we feel that their "condition," in the sense that the athlete uses it, should be improved as much as possible so that they will respond readily to, and quickly recover from, the demands of the strenuous kinds of activity which we know they will undoubtedly pursue. Not infrequently in order properly to evaluate their response to gradually increased exercise and to reassure their parents, we keep them under observation, note their weight, appetite and sleep, and do serial exercise tolerance tests. Most parents, and of course most adolescents, will welcome reasonable proof that the heart is normal, but occasionally a problem will arise where the parent is consciously or unconsciously restricting a son or daughter's activity in order that control over their lives may be maintained. In such instances it is the parents who will need help, and one can expect little in the way of benefit either to the parent or to the adolescent unless patience and time are expended.

HYPERTENSION

A second problem concerns blood pressure. It is our belief that the determination of blood pressure is a very important part of these young people's medical examination, that it is neither futile nor a waste of time. But it must not become another source of unnecessary worry. Less than two per cent of our patients are found to have a significant degree of hypertension, and at least three-quarters of these turn out to be what we call the labile type associated with some anxiety. It seems important to us that whenever possible conflicts which produce anxiety and seem to be responsible for an elevation of blood pressure should be resolved. Here the blood pressure is a warning to the physician. It calls his attention to the possibility that his patient has a problem. To shrug it off as inconsequential is to lose an opportunity to help with something of real importance. A considerable number of adolescents have been found whose hypertension is associated with such difficulties as coartation of the aorta, chronic nephritis, or unilateral renal disease. These obviously need care. True essential hypertension is very rare in our clinic.

REVALUATION

The third group of cardiovascular problems consists of those patients who have been told they have organic heart disease. These young people should be carefully revaluated, and we say this for several reasons. First, we find that frequently they have been unduly restricted in their activities during previous years and it is usually the case that a considerable increase in activity can be allowed. Furthermore a revaluation is desirable because newer methods of surgical and medical treatment may be available, and those who could not have been benefited by surgery yesterday may well be helped now or in the near future. Next, we feel that re-examination may call attention to some of the noncardiac factors which it has become important to consider. Such conditions include the iron deficiency anemias (which can be particularly significant after menarche); the cessation of the growth period; or the onset of menarche (for the polycythemic patient). And finally, their new needs and problems—those having to do with acquiring more freedom, school, or getting a job—may require help.

ILLUSTRATIVE CASE

One of our young patients illustrates many of these points and primarily the idea that one must know people, not just disease processes.

Sally was referred to our clinic for the evaluation and management of what was said to be cardiovascular disease associated with tachycardia and hypertension. An examination during the previous year showed that she consistently had a heart rate of 120 and a blood pressure of 150/90. There was nothing in this 14-year-old girl's history to suggest a familial, congenital or infectious cause of heart disease. She had no symptoms except palpitation and eye fatigue; in fact, it was the latter that had made her mother seek medical advice. There were no other significant findings at that time on physical examination, in the electrocardiogram, or on fluoroscopy of her heart. Nevertheless, on the basis of her blood pressure and pulse level she had been told to give up all forms of exercise, and had been told she must take it easy all summer.

The following autumn at her initial visit to us she appeared to be a healthy, strong young person. Her physical examination and laboratory findings were in agreement with those reported at the time of her referral. However, her pulse recovery after strenuous exertion was good, and neither her general appearance nor the findings seemed to us to justify the diagnosis of cardiovascular disease or to demand a restriction of her activity. Her physician's suspicion that other than structural changes were responsible for her borderline findings began as he formed an impression of her personality, and increased as she told him things about herself, about her family, her friends, her daily life, her plans, and her worries.

Sally's father, whom she adored, had been a fine athlete. She had always wanted to please him, to excel in athletics, and to become a physical education teacher. School work held little interest for her. She wanted to be sure that studying wouldn't hurt her eyes; the reading which high school assignments required clearly worried her. She was not at all nervous when playing soft ball, field hockey, or in a swimming meet, but she said that her heart pounded when she had to give a talk in school. Her menarche the previous spring had been a real blow: "I always wanted to be a boy."

There were hints enough here for anyone familiar with adolescents' attachment to a parent, their hero worship, their resentment of anything that pushes them around, their frustration, and worry when faced with something beyond their control or contrary to their hopes. Success, a career in athletics, being like her father were everything. Becoming a woman was less than nothing. A big tomboy, still worshiping her father and alternately envying boys and wanting to be noticed by them, she clearly needed a chance to work out this confusion and to have unobtrusive support and understanding while she was making the transition to a more feminine approach to life. These she needed; rest and restriction she did not need. Paying attention to her, to what kind of a person she was, not to her heart rate, made a very considerable difference.

SUMMARY

Adolescent's characteristics are discussed as a basis for suggesting ways of managing these patients and for understanding their reactions and their medical and emotional needs. As illustrative of this some of their cardiovascular problems are outlined, and one case report is given. It is emphasized that effective care of members of this age group is dependent upon a knowledge of the ways in which they and their ailments differ from children and adults and their disorders.

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Herniation through the Diaphragm into the Pericardium

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Herniation through the diaphragm has been well documented in the literature and it has been established that various congenital anomalies of the diaphragm represent the basis for the vast majority of nontraumatic herniations. Types of congenital diaphragmatic hernia with which we are all familiar, are (a) through the hiatus pleuroperitonalis foramen of Bochdalek, (b) through the dome of the diaphragm due to partial absence of the posterior portion of the muscle, (c) through the esophageal hiatus, and (d) through the foramen of Morgagni.

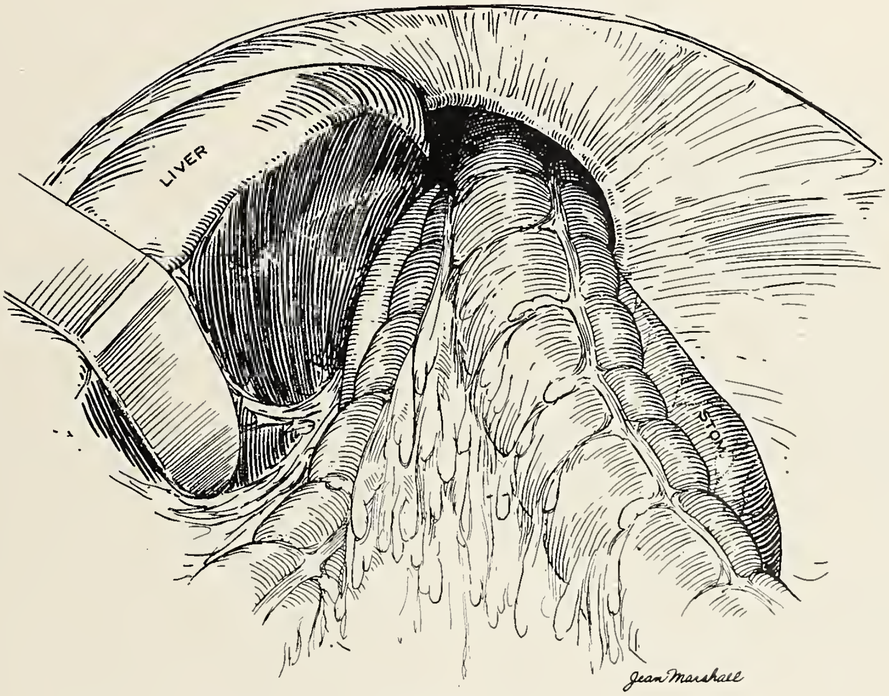

Figure 1
Defect in the diaphragm containing the herniated stomach and colon.

That herniation can occur through the middle leaflet of the central tendon with direct entrance into the pericardial sac has been rarely noted. Indeed its occurrence is so unusual that it has not been included in the usual discussions on diaphragmatic hernia. In 1948 Harrington[1] reported on his extensive personal experience with 400 cases of diaphragmatic hernia, not one of which included a defect in the pericardial sac. A collection of 821 cases reviewed by Hedbloom[2] in 1934 made no reference of herniation into the pericardial sac.

The Library of the American Medical Association has reports of eleven cases in the world literature. Of these, eight were autopsy findings of stillbirths or neonatal deaths in whom defects between the pericardial sac and diaphragm were associated with other anomalies of such magnitude as to be incompatible with life. The remaining three cases[3, 4, 5] were successfully corrected surgically. Two of these were congenital defects in infants and one

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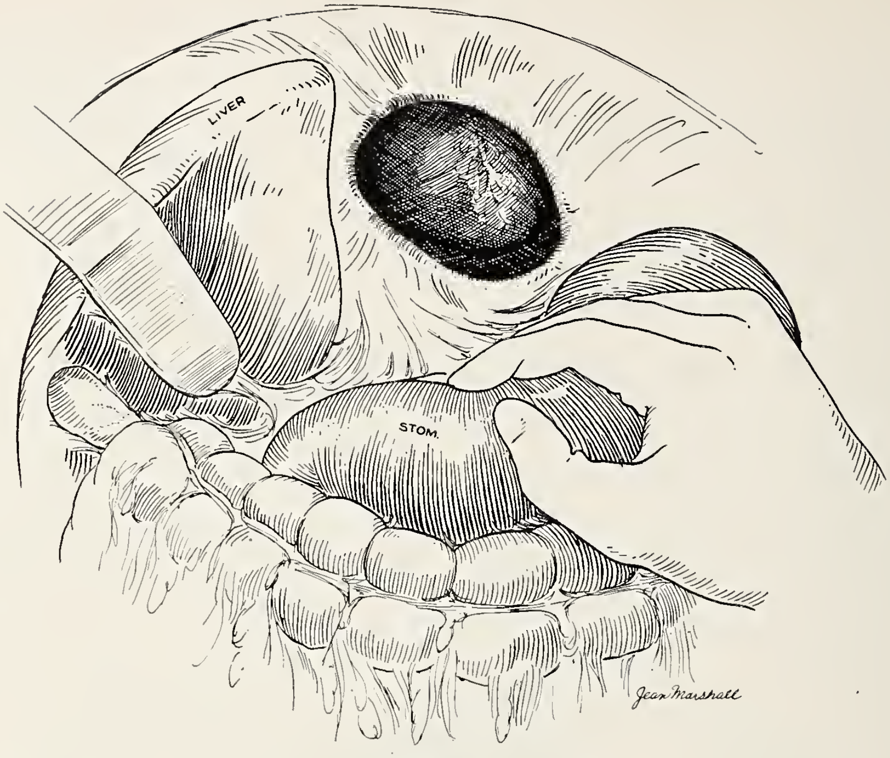


FIGURE 2

Defect as seen after removing herniated viscera showing peritoneopericardial communication and exposed heart.

was a 48 year old African native with a history of trauma.

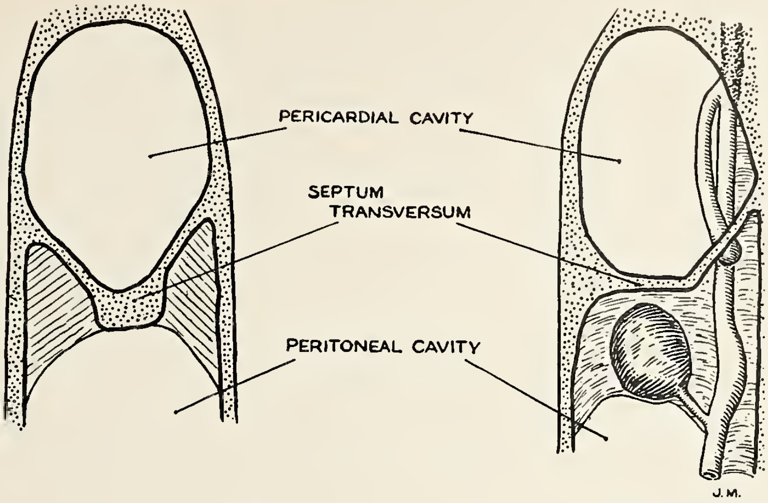
CASE REPORT

The case which we wish to present is that of a 53 year old woman who was admitted to the Stamford Hospital emergency room following an automobile accident. Besides the initial shock, which was promptly corrected, the injuries sustained consisted of compound comminuted fractures of the right tibia and fibula, comminuted fracture of the left radius and ulna, fractured 4th, 5th, and 6th ribs on the right, and multiple abrasions and contusions. An abdominal examination revealed no signs of internal injury and the lungs were clear and fully expanded. She was taken to the operating room where an open reduction of the compound fracture of the tibia was performed and the fractured radius and ulna were reduced. The patient remained in the hospital for a period of eight months during which time her entire care was orthopedic. Approximately one month after admission a chest film indicated a small pleural effusion on the left but was otherwise negative.

Thirteen months after the accident the patient was readmitted because of persistent postprandial epigastric pain which radiated upward into the left chest. She reported that something seemed to "flop over" when she turned on her left side in bed.

A chest film showed a large bizarre shadow filling the base of the left chest and containing fluid levels. The barium studies of the stomach, small and large bowel indicated that almost the entire stomach and a considerable portion of the transverse colon were in the left chest.

With a preoperative diagnosis of a traumatic diaphragmatic hernia the patient was taken to the operating room and the left chest was opened through the bed of the 8th rib. To our astonishment the left pleural cavity was normal, and the diaphragm on this side was free of any defect; however, the pericardial sac was distended and upon palpation the presence of bowel could be detected within it. We therefore extended our incision across the costal margin into the abdomen. The true nature of our problem was then apparent. A large round hole was present in the central leaflet of the diaphragm measuring about 8 cm. in diameter with the left lobe of the liver entering it on its right side and with the stomach and colon filling the remainder of the defect (Fig. 1). There were no adhesions and no peritoneal sac. When the contents were reduced the heart was freely pulsating against the surface of the liver. The pericardium was smoothly



(FROM DODDS)

Figure 3
Upper peritoneal cavity (Coelomic Cavity) with pleural recess (shaded area) before development of pleuroperitoneal membrane.

continuous with the peritoneum (Fig. 2). A remarkable finding was the absence of a triangular ligament leaving the left lobe of the liver unsupported. Thus, this portion of the liver could be deflected into the opening. We elected to bridge this defect with a fascia lata graft which was readily done and when completed the liver assumed a position entirely covering the graft and conveniently served to buttress it. The patient's postoperative course was uneventful and at the present time—one year later—there is no evidence of recurrence.

To explain this hernia entirely on trauma leaves much to be desired. The smooth continuity between pericardium and peritoneum, the absence of adhesions, and the undeveloped triangular ligament argue strongly for a congenital anomaly. Yet it is difficult to understand how such a defect could persist for 53 years without producing symptoms. However, O'Brien[6] reports that during dissection of a 63 year old cadaver a similar defect was found in the central leaflet of the diaphragm. The abdominal viscera were prevented from entering the pericardium by the blockade produced by the left lobe of the liver.

EMBRYOLOGY

A review of the embryological development of the diaphragm will explain the probable origin of this defect, illustrated in Fig. 3 to 6. The middle leaflet of the central tendon of the diaphragm is formed from the transverse septum which early in development extends across the coelomic cavity. It is this structure which descends from the level of the 4th cervical myotome that carries with it the cervical nerve innervation to the diaphragm. The coelomic cavity above this septum remains as the pericardial sac after the pleural cavities expand on either side with their growing lungs. Fusing with the transverse septum is the pleuroperitoneal membrane which proceeds from the lateral wall. It is a double layered serous membrane, being pleura above and peritoneum below and between which the striated muscle extends to the central tendon. Therefore a defect in this transverse septum or future central tendon will be distinctly different from failure of some portion of the pleuroperitoneal membrane. The former will necessitate a defect into the cephalic coelomic cavity or future

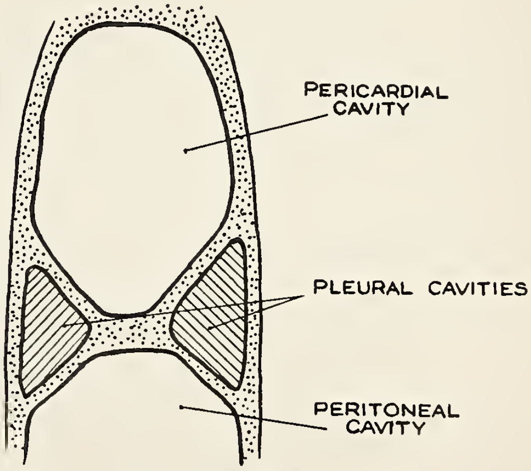


Figure 4
Pleural cavities separated from peritoneal cavities by pleuroperitoneal membrane.

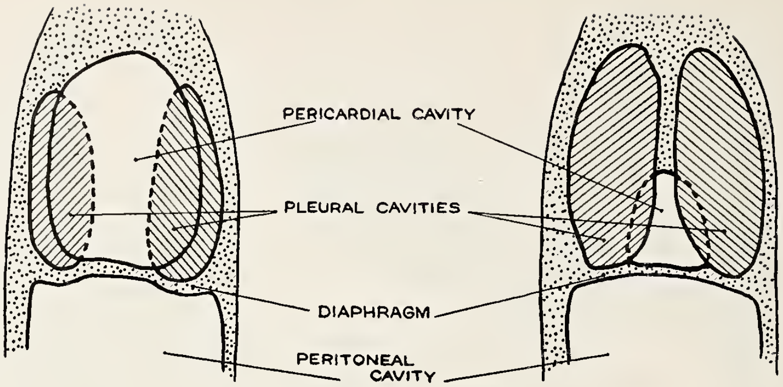


FIGURE 5 AND FIGURE 6

Pericardial cavity decreases in size with enlarging pleural cavities but retains its relation to middle leaflet of diaphragm (former septum transversum).

pericardium. The latter defect would be through the muscular diaphragm into the pleural cavity.

SUMMARY

It is suggested that this case represents a very unusual defect in the diaphragm due to failure of the developing transverse septum to separate the two portions of the coelomic cavity. The congenital basis for the defect is supported by the failure to find evidence of trauma at surgery plus the absence of a triangular ligament. Nevertheless, the relationship of trauma cannot be denied and must be assumed to be responsible for forcing the bowel into a preexisting defect.

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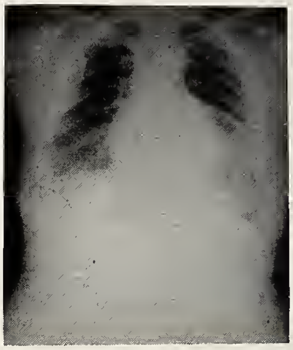

FIGURE 7

Preoperative x-ray of chest showing radiolucent shadows above the left diaphragm.

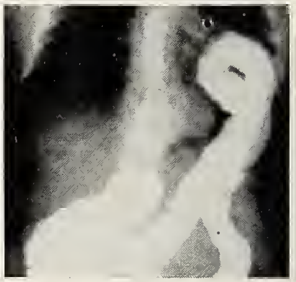

FIGURE 8

Preoperative barium enema.

Extreme Obesity

A Cause of Heart Failure

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Hartford

Obesity is esthetically unappealing, but, in addition, is well recognized as a contributing factor to serious illnesses. The incidence of coronary artery disease, hypertension and cerebral vascular disease is apparently higher than in the general population. Life insurance records and actuarial tables have documented the shorter life expectancy in extremely obese individuals, as a group.

A most interesting complication of obesity is right heart failure. Reference to this peculiar type of cardiopulmonary failure has been scanty in the past. Many reported cases have been misdiagnosed[1,2,3,4,5], although the syndrome was accurately described in American medical journals at least 22 years ago. Interest has been revived with the recent influx of case reports[7,8,9,10,11,12], accurately diagnosed, especially since Burwell *et al*[8] quoted Dickens' excellent description in the Pickwick Papers of the fat boy.

This type of cardiopulmonary failure is more common than heretofore appreciated. Physicians must be alert to its existence since the heart failure may be completely reversible.

Clinical features are extreme obesity, somnolence, twitching, cyanosis, periodic respirations, polycythemia, right ventricular hypertrophy and right ventricular failure. Laboratory studies reveal polycythemia, arterial oxygen unsaturation, increased arterial carbon dioxide concentration, decreased tidal volume and decreased alveolar ventilation. In cases which have come to autopsy no lesion is found in the heart or lungs which could explain the pathogenesis.

If the obesity is reversed, the heart failure may completely revert to normal and the patient recover. In this form of heart failure it is especially important that treatment not be too vigorous. Treatment which may be generally acceptable for the usual forms of congestive heart failure may, in this syndrome, cause irreparable harm, even death.

Two patients, recently seen at the Hartford Hospital, represent examples of this syndrome and form the basis of this report. One, who came to autopsy, has previously been reported.[13]

CASE 1

Male, 43, timekeeper, had been in good health in spite of persistent obesity until three months prior to admission when he developed a dry, hacking, nonproductive cough. For seven to eight weeks he had noted increasing shortness of breath, somnolence and lethargy, nocturia of five to eight times, and ankle edema.

Past history included osteomyelitis in 1921, appendectomy in 1941, and phlebitis of the left leg in 1956. He smoked cigars and a pipe. He had been a "pampered baby" until the age of two and one-half years and was told he had been a feeding problem during infancy and childhood. He had always been large for his age and for his class in school. His average weight during high school was 190 pounds, 230 pounds until the age of 31 and since then had risen to 290 pounds. He had had severe emotional problems throughout his life.

Examination revealed an extremely obese white man who appeared older than his stated age, with ruddy complexion, moderate dyspnea while standing, lips deeply cyanotic, abdominal striae, blood pressure 128/80, pulse 108, respirations 24, height 69½ inches, and weight 294 pounds. He had a large, barrel chest and respiratory excursions were limited. A few moist rales were heard at each base and breath sounds were faint. The heart was not enlarged, P2 was greater than A2. No murmurs or thrills were present.

The abdomen was impossible to palpate because of the huge panniculus. He had four plus pitting edema of the ankles, legs, sacrum, and penis, stasis dermatitis of both legs and an intertriginous rash in the groin.

Laboratory studies showed an acid urine, albuminuria and cylindruria, a hematocrit of 64 per cent, white blood count 11,300 with 81 per cent polymorphonucleocytes, blood sedimentation rate 1 mm./hour, NPN 38 mg. per cent, blood sugar 122 mg. per cent, serum protein 7.6 gm. per cent, serum albumin 2.8 and globulin 4.8 gm. per cent, cholesterol 167 mg. per cent, alkaline phosphatase 4.4 units, bilirubin 0.7 mg. per cent, venous pressure 310 mm. saline (right arm, supine, measured 18 cm. above the spine), Decholin circulation time 41.5 seconds arm-to-tongue, PSP excretion 15 per cent in 15 minutes, 40 per cent in one hour and blood volume (Evans blue dye) was reported as plasma excess 1,600 cc. and red blood cell excess 6,000 cc.

Pulmonary function tests revealed vital capacity 1,800 cc. (46 per cent of predicted normal), maximal breathing capacity 23 L./minute (14. per cent of predicted normal) arterial CO_2 75.2 volumes per cent (normal 45-55), pCO_2 90 mm. Hg (normal 40), arterial oxygen 14.5 volumes per cent (normal 15-23), arterial oxygen capacity 23.3 volumes

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From the Department of Medicine, Hartford Hospital.

per cent, arterial oxygen saturation 62 per cent (normal 96-100 per cent) and pH 7.32 (normal 7.38-7.45).

Chest x-ray showed a moderately enlarged heart and tortuous aorta. An electrocardiogram showed severe right axis deviation.

He was started on an 800 calorie diet, bed rest, mercurial diuretics, aminophyllin suppositories, digitalis, and multiple phlebotomies, removing 1,100 cc. of blood and reducing the hematocrit to 54 per cent in three days. He had also been started on ammonium chloride, 6 Gm. daily, which was to be given as intermittent therapy. On the fourth hospital day, insidiously and progressively, lethargy increased, respirations became more severely depressed, sweating became profuse, blood pressure became unobtainable and he was unresponsive. In spite of vigorous measures, including a tank respirator, he expired.

Postmortem examination: The body was that of a 71 inch well developed, monstrously obese, white man with extreme livor mortis. The skin of the lower extremities was scaling, pitted and slightly atrophic and there was marked edema of the lower legs. There were linear purple abdominal striae. The subcutaneous tissues were markedly edematous and the systemic vessels engorged with blood. The mesenteries and retroperitoneal connective tissue were heavily infiltrated with fat.

The heart weighed 600 gm. The pericardium was unremarkable. The right ventricle was four plus hypertrophied with moderate dilatation, and its papillary muscles were greatly coarsened and thickened. The right ventricular wall was six mm. thick. The apex of the heart was formed equally by right and left ventricles. The left ventricle was two plus hypertrophied with slight dilatation. The right auricle was greatly enlarged and dilated. The subendocardial muscle bundles of the right auricle were prominently thickened. An organized large mural thrombus was adherent within the right auricular appendage. The cardiac valves were normal. The coronary arteries were free of sclerosis and were widely patent.

The lungs together weighed 750 gm. and the lower lobes were locally atelectatic. There was generalized moderate congestion and edema. There was no emphysema, fibrosis or bronchiectasis. A single, small, sharply demarcated, hemorrhagic, firm, slightly friable area of pulmonary infarction was present in each of the lower lobes. Pulmonary arteries were unusually large and showed diffuse atherosclerotic plaques extending into the subsegmental branches. No thrombi were present within the main or lobar branches of the pulmonary arteries. A total of four thrombotic emboli ranging in age from relatively recent to immediately antemortem were present in segmental branches of the pulmonary artery in both lungs, two of which corresponded to the supply of the infarcted areas.

The liver weighed 2,100 gm., the spleen 350 gm. A loosely adherent antemortem, friable thrombus was present in a branch of the large caliber right renal vein.

Histologic examination revealed moderate congestion of small pulmonary venous channels and alveolar capillaries, moderate sclerosis of small muscular pulmonary arteries, focal areas of atelectasis and several recent thrombi. No anomalous pulmonary circulation was found.

No other abnormalities were found at postmortem examination.

SUMMARY OF CASE 1

A 43 year old, massively obese, white man with somnolence, lethargy, and right ventricular failure was found to have arterial hypoxia and hypercapnia, secondary polycythemia, right axis deviation by electrocardiogram, decreased vital capacity and decreased maximum breathing capacity. He received digitalis, phlebotomies, mercurial diuretics and ammonium chloride. Clinically, death was apparently due to progressive respiratory center narcosis. At autopsy the only significant findings were right ventricular hypertrophy and right auricular enlargement. An incidental finding was several small recent pulmonary emboli from a thrombus in the right auricle.

COMMENT ON CASE 1

The small thrombi and two areas of infarct in the lungs could not explain the right-sided heart failure. It is most likely that this is a case of obesity and associated cardiopulmonary failure, with superimposed pathologic findings of small emboli and thrombi, probably due to a combination of dilated, hypertrophied right heart and a tendency to thrombosis because of the polycythemia.

The immediate cause of death cannot be established with absolute certainty. Patients with borderline compensation of acidosis are known to be sensitive to slight increases in acidosis,[16] and it is conceivable that the ammonium chloride further increased the acidosis, leading to irreversible respiratory center narcosis and death.

CASE 2

Female, 66, had had severe congestive failure for four months, intermittent cyanosis, apnea, somnolence and lethargy. She had generalized edema, extreme dyspnea even at rest, cough, foamy sputum and hemoptysis. She had been taking one tablet of digitalis daily for years.

Physical examination revealed blood pressure 190/80, pulse 60 and irregular, and respirations 26 per minute. She was massively obese, weighing 263 pounds, and only five feet, two inches tall. Her respiratory distress was moderately severe. She appeared cyanotic and had a plethoric facies. Moist rales were heard at both bases and expiratory wheezes were present. The apical impulse of the heart was shifted beyond the midclavicular line in the fourth intercostal space. Heart rhythm was grossly irregular. Abdominal examination was unsatisfactory because of the panniculus. Massive edema was present in the extremities.

Laboratory studies revealed hematocrit 55 per cent, white blood count 11,450, urinalysis negative. Carbon dioxide combining power on admission was reported as 29 mEq./L., but later was 42, 54, 48, and 36 mEq./L. on repeated determinations. An electrocardiogram showed atrial fibrillation with ectopic ventricular contractions, incomplete right bundle branch block and digitalis effect. Chest x-ray showed pulmonary vascular congestion, extreme cardiac enlargement, and calcifications in the mediastinum.

Pulmonary function studies showed vital capacity of 1,815 cc. before and 2,085 cc. after bronchodilators (55 per cent of predicted normal) with 83 per cent during the 1st second, 97 per cent by the end of the 2nd second, of timed expiration. These results were considered compatible with restrictive ventilatory insufficiency. Arterial blood studies before treatment were CO_2 70.1 volumes per cent, O_2 14.8 volumes per cent, O_2 saturation 74 per cent, pH 7.27 and pCO_2 81 mm. Hg. After two weeks of therapy these had improved to CO_2 62 volumes per cent, O_2 16 volumes per cent, O_2 saturation 87 per cent, pH 7.35 and pCO_2 57 mm. Hg.

Treatment consisted of bed rest, low salt diet, digitalis, mercurial diuretics, aminophyllin suppositories, intermittent oxygen therapy, positive pressure Bennet respirator, and multiple small phlebotomies. During a three week period she lost 69 pounds, and weighed 196 pounds. She was discharged improved on digitalis, a 500 mg. salt diet and 1,200 calorie diet.

When last seen two months after discharge she had lost no further weight, still weighing 196 pounds. Her hematocrit was 43 per cent, heart rate 100 with atrial fibrillation. She had had no cardiorespiratory symptoms. Physical examination revealed only scattered inspiratory wheezes and no edema. She was continued on digitalis and diet but no other medications. She had not returned for further follow-up.

SUMMARY OF CASE 2

A 66 year old, extremely obese, white lady with somnolence, lethargy, cyanosis, intermittent apnea, right ventricular failure and left ventricular failure, arterial hypoxia and hypercapnia, secondary polycythemia, and decreased vital capacity, was treated with digitalis, phlebotomies, mercurial diuretics and supportive therapy. With weight loss, improvement was dramatic both clinically and by laboratory studies.

COMMENT ON CASE 2

This patient had all the clinical and laboratory features associated with cardiopulmonary disease secondary to obesity. In addition, the case was complicated by the presence of left heart failure, most likely due to coronary artery disease, manifested by pulmonary vascular congestion. Therefore, this does not represent the pure syndrome of right heart failure due to obesity. However, coronary artery disease alone cannot adequately explain all the findings and the most likely diagnosis is right heart failure due to two causes, obesity, and coronary artery disease causing left ventricular failure, both contributing to the right heart failure.

Definitive diagnosis of the pure syndrome depends on finding normal lungs, little or no evidence of left heart failure, and the only abnormality of the heart, right ventricular hypertrophy, at postmortem examination. Fortunately, this lady improved and the diagnosis rests on clinical grounds alone. However, one can predict a significant amount of coronary artery sclerosis would have been found, involving the left as well as the right heart.

DISCUSSION

Pulmonary function studies in patients who are obese, pregnant or have ascites, indicate that increasing abdominal girth is accompanied by decreasing expiratory reserve and, when extreme, may lead to relative ventilatory insufficiency.

In an excellent review of the physiologic dynamics of obesity,[6] increased thoracic kyphosis was considered to have the greatest effect on respiration. The increased spinal curve elevates the ribs, producing barrel chest, and the flaring rib cage directs the lower ribs downward. The diaphragm is widened and flattened. Its motion is further hindered by the visceroptosis and panniculus. Most obese persons breathe easier lying prone, probably because the diaphragm is relieved of weight. This has been called orthostatic dyspnea. Since the chest is fixed in the inspiratory position, tidal air and complemental air are reduced and passive expiration is hindered. Expiration then must become active and muscular, mainly thoracic. More work will be required to maintain ventilation, and to conserve energy, breathing becomes shallow.

Shallow breathing leads to alveolar hypoventilation[8] because the anatomic dead space must be ventilated before alveoli can be ventilated. Since alveolar-ventilation-per-breath equals tidal volume minus dead-space-ventilation-per-breath, any reduction of tidal volume at a constant minute volume will automatically reduce alveolar ventilation. At a critical point, alveolar ventilation cannot be maintained by increasing respiratory rate. As tidal volume becomes less than 250 ml., respiratory rates greater than 40/minute become necessary, and alveolar hypoventilation is inevitable.

Alveolar hypoventilation leads to low alveolar oxygen and high alveolar carbon dioxide partial pressures, thus to chronic hypoxia and chronic hypercapnia. Chronic hypoxia leads to cyanosis, to polycythemia[14] and, apparently by direct constriction of pulmonary vessels,[15] to pulmonary hypertension, thus to right ventricular hypertrophy and right ventricular failure. Hypercapnia, increased blood volume and increased viscosity may contribute to the right ventricular failure.

Increased alveolar pCO_2 leads to hypercapnia which, in turn, induces the symptoms of CO_2 narcosis: somnolence, mental confusion, weakness, lassitude, irritability, tremor or twitching, warm, flushed skin, sweating, tachycardia, hypotension, and sensitivity to small changes in acidosis.[16] Hypoxia also contributes to many of the symptoms.

It is interesting to compare the findings in natives of high altitudes with those in patients with alveolar hypoventilation. Frequently these natives have decreased arterial oxygen saturation, cyanosis, secondary polycythemia, right heart predominance, right axis deviation by electrocardiogram and clinical evidence of alveolar hypoventilation and hypercapnia, but central nervous system depression is seldom prominent. This is recognized as the natural occurrence of hypoxia without associated hypercapnia. Such studies indicate that hypoxia alone may lead to right heart failure. The corollary, hypercapnia without hypoxia, is not known to occur naturally.

Since the syndrome can be reversed by weight loss, obesity probably is an important contributing factor, although the mechanism is not clear. That obesity may not be the sole factor is suggested by the large number of obese persons, some massively obese, who do not develop polycythemia, cyanosis, or other manifestations of the syndrome. It is also well recognized that cyanosis, polycythemia, arterial oxygen unsaturation, right ventricular hypertrophy, and right ventricular failure have occurred without demonstrable cause in patients who were thin.[3] This syndrome, occurring in obese individuals, is not merely a coincidence. It can be reversed by weight loss.

DIFFERENTIAL DIAGNOSIS

Because of the polycythemia, the syndrome is frequently confused with polycythemia rubra vera. However, it should be remembered that the latter does not cause arterial anoxemia, pulmonary function is normal and, in most cases, platelets, leucocytes, or both, are also elevated, and the spleen is usually palpable. An adequate history, physical examination and pulmonary function tests may rule out intrinsic pulmonary or cardiac disease.

TREATMENT

Definitive treatment is directed toward weight loss. Interval therapy should include repeated, small phlebotomies to a hematocrit of 45 to 50 per cent, digitalis, low-salt diet, and deep breathing. Mercurial diuretics must be used with caution in the presence of polycythemia to minimize the danger of thrombosis. Intermittent positive pressure breathing may be helpful. A mechanical tank respirator may be necessary if the situation becomes critical but will probably be ineffective because of the huge size of the patient. The role of salicylates in stimulating the respiration center needs further investigation. To our knowledge it has not yet been used in the treatment of this syndrome but may prove to be valuable adjunctive therapy.

Ammonium chloride, Diamox, other acidifying agent, narcotics and sedatives probably should be avoided, if possible, and oxygen therapy given only with caution since each of these agents can increase narcosis and may cause death of the patient.

SUMMARY

Two cases are presented which fit the syndrome of obesity and associated cardiopulmonary failure. Clinical features of this syndrome are extreme obesity, somnolence, twitching, cyanosis, periodic respirations, polycythemia, right ventricular hypertrophy and right ventricular failure. Laboratory studies reveal polycythemia, arterial oxygen unsaturation, increased arterial carbon dioxide concentration, decreased tidal volume and decreased alveolar ventilation. Extreme care is necessary to avoid overtreatment. Ammonium chloride, Diamox, and other acidifying salts, which may be of value in treating other forms of congestive heart failure, probably should be avoided, if possible, in treating this particular type.

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Adrenal Disease in the Newborn Child

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Recent investigations have provided considerable additional knowledge concerning the normal physiology of adrenal function in the newborn child. A short consideration will be made of these findings before discussing adrenal disease in this age group.

Figure 1 shows the pattern of metabolically active adrenal steroids in the plasma of normal, full-term, newborn infants. As shown in the top portion of the figure, the plasma hydrocortisone (Cpd. F) concentration is quite considerable in the umbilical cord (first day of life). But thereafter for the next six or seven days there is almost no hydrocortisone normally found in the plasma of the newborn infant. After the first week of life the plasma hydrocortisone level achieves that of the adult. The lower portion of Figure 1 shows the pattern of plasma 17-ketosteroids in the normal, full-term, newborn infant. It may be observed that the plasma 17-ketosteroids (androgens) approximate 100 µg per cent for the first two days of life. This is somewhat higher than the normal adult value for this group of steroids. The plasma 17-ketosteroids fall precipitously during the first five days of life, and by the end of the first week are no longer in evidence.

These plasma studies on normal newborns point out the increasing complexity of the newer knowledge of adrenocortical metabolism. It therefore appears that the newborn by 24 hours after parturition has virtually no circulating hydrocortisone, which is the carbohydrate active steroid of the human adrenal cortex. Thus far, no teleological explanation has satisfactorily explained this finding which obtains for approximately the first week of life. Conversely, the normal newborn has concentrations of plasma 17-ketosteroids during the first few days of life which may be greater than adult values. Again, the how and why of this latter group of steroids in the newborn is not at all clear.

Figure 2 is a diagrammatic portrayal of the changes in fetal plasma hydrocortisone (Cpd. F) which take place during normal vaginal delivery. The data are taken from the work of Migeon and colleagues at Johns Hopkins.[1] It may be seen in the top half of Figure 2 that there is a transient rise in the concentration of circulating hydrocortisone in the infant during the process of delivery. During fetal life the plasma value for hydrocortisone is less than one half that of the normal adult figure. At the time of birth the concentration may transiently exceed 20 µg. per cent and then, as described above, the concentration falls to unmeasurably low levels. The lower half of Figure 2 shows the findings obtained when similar measurements were made on the plasma of infants delivered by cesarean section.

For many years the striking histological changes in the adrenal cortex of the normal newborn have excited curiosity and speculation. Figure 3 attempts to relate these histological findings to the physiological data which have just been presented. The lower portion of Figure 3 diagrams the changes which occur in the normal newborn adrenal cortex during the first 30 days of life. It will be noted that the inner, transitional fetal zone collapses rapidly. Coincident with this change there is a proliferation of the intermediate zona fasciculata which is believed to be the tissue involved in the elaboration of hydrocortisone. The upper portion of Figure 3 shows the mirror-image changes in the concentration of blood eosinophils and blood sugar which take place during the first

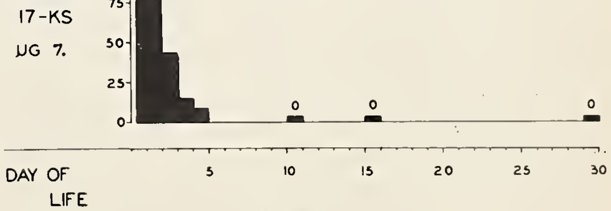

Figure 1

Contrasting patterns of plasma hydrocortisone (Cpd. F) and plasma 17-ketosteroids (androgens) in the normal full-term newborn.

From the Department of Pediatrics, State University of New York.

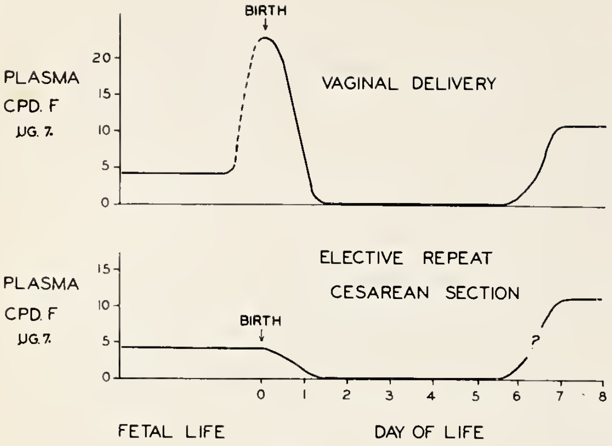

Figure 2
Plasma hydrocortisone (Cpd. F) changes during late fetal life, parturition and the newborn period.

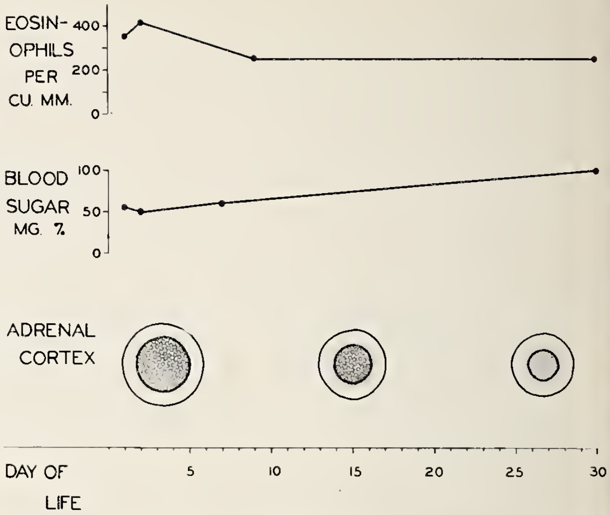

Figure 3
Serial changes in blood eosinophils, blood sugar and adrenal cortex in the normal full-term newborn.

month of life. All these findings are consistent with the hypothesis that the normal newborn infant in the first days of life is able to elaborate hydrocortisone at only a very slow rate, if at all. It would appear that the infant's ability to produce hydrocortisone increases steadily as the first weeks of life pass by.

The above described pattern may very well be due to the relative lack of ACTH in the newborn. There are several reasons for suspecting that this is the case. It has been shown that the newborn adrenal, while not yet elaborating hydrocortisone, can do so on demand if the infant is given exogenous ACTH. Another thread of indirect evidence is the fact that small infants with congenital adrenal hyperplasia do not seem to develop a great compensatory overproduction of ACTH until after the first few months of life. This again suggests that the very young infant's pituitary is relatively inactive insofar as ACTH production is concerned.

From the point of view of absolute statistics, adrenal disease in the newborn is quite rare. For example, it has been estimated that congenital adrenal hyperplasia occurs only once in every 67,000 live births. This, however, represents one of the frontiers for reducing newborn mortality and also for providing improvement in proper diagnosis. Even today prompt diagnosis of the newborn "sodium-loser" with congenital adrenal hyperplasia is not always made. Delay in recognizing this condition can be fatal, since even with early diagnosis the management of such cases can be exceedingly difficult.

CONGENITAL HYPERPLASIA

Since the abnormal over-production of androgens in congenital adrenal hyperplasia causes congenital abnormalities in the genitalia of the female newborn with this disease, this physical finding may be of great help. Accordingly any newborn with abnormal genitalia should be suspected of having congenital adrenal hyperplasia. It is especially dangerous for such a newborn to be unwittingly designated as "diagnosis: hypospadias", as has been done so frequently in the past. The term "hypospadias" implies that the infant is a male, when the infant may in fact be a female, if the diagnosis *is* congenital adrenal hyperplasia. Figure 4 shows the appearance of the genitalia of a two months old female infant with congenital adrenal hyperplasia. It is obvious how easy it would be to make a mistaken assignment of gender role in this infant without special studies. In this case (Fig. 4) the sex chromatin pattern was female and the urinary 17-ketosteroids were elevated, strongly supporting the diagnosis of congenital adrenal hyperplasia.

The newer knowledge of the individual development of the human gender role now tells us that we must tread like angels in this area. The first two and one-half years of life appear to have a crucial influence on all those later attitudes of the individual which relate to his own gender role. Hence, an inappropriate designation of the gender role of a newborn with ambiguous genitalia may wreak havoc with the later social and emotional life of this individual. On the other hand, accurate early diagnosis and thoughtful management of such an infant's problem of gender role may make possible a happy future and a productive social existence.

If possible, expert advice should be obtained *while the child is still in the newborn nursery and before a name has been chosen.* The complete and necessary medical investigation of a newborn with abnormal genitalia is a procedure which cannot be presented in detail here. Suffice it to say that the clinical investigation entails at the least a determination of the sex chromatin pattern and a measurement of urinary 17-ketosteroids. In our present state of knowledge there is no reason why a newborn should be designated a gender role inconsistent with the potentialities of its genitalia. In the event this does occur and is not discovered until later, one cannot overemphasize the fact that time is of the essence in correcting the situation. The exhaustive studies by Hampson and Money indicate that a change of gender role may usually be accomplished before the age of two years without permanent psychological damage to the child, although it is very traumatic for the parents.[2,3] If this is delayed until two and one-half years the danger of long-term psychological damage is increased; and if the change is delayed until three or four years profound psychological disturbances in the child's development may be expected. Once a child has begun school, a change of gender role is probably contraindicated.

Great care must be exercised in discussing with parents the problem of abnormal genitalia in their newborn child, especially when the gender role is still in question. The terms "hermaphrodite" and "pseudohermaphrodite" might better be left out of the physician's working vocabulary in talking with such parents. "Hermaphrodite" is a threatening and ominous term to a parent, because of its connotation in the lay vernacular. The hospital staff is urged not to express to the parents conjectures about the possible gender role of their infant prior to definitive study.

ADDISON'S DISEASE

True Addison's disease in the newborn is very rare. Only a handful of authenticated cases of true hypoadrenocorticism due to lack or destruction of adrenal tissue have ever been reported in the newborn.[4,5] In this very small group of cases some appear to be due to adrenal hemorrhage secondary to birth trauma. If these patients survive the first few weeks of life, they may be found to have calcified adrenals later in childhood.

SUMMARY

A review is given of present knowledge of adrenal physiology in the newborn child. The importance of immediate investigation of abnormal genitalia in the newborn is noted.

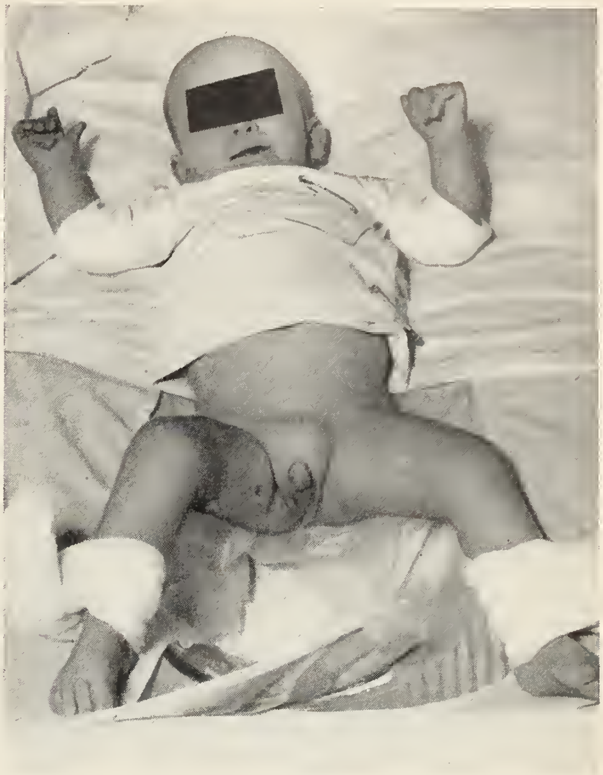

FIGURE 4
Female infant with congenital adrenal hyperplasia, demonstrating typical appearance of the abnormal genitalia.

Treatment to establish the proper gender should be accomplished before the age of two years. True Addison's disease in the newborn is very rare.

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The ECHO Viruses and Their Role in Human Disease

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A recent estimate places the number of viruses affecting humans which have been uncovered since 1948 at 70. The dilemma which this large number of viruses presents to students of infectious disease involves many problems in virology as well as the important question as to what role these agents play in human disease.

As for the growing ECHO group of enteric viruses, now numbering 20, an encouraging beginning has been made: it has been possible to evaluate at least some of these agents in terms of their disease producing potential, and to place them with respect to other viral enteric pathogens, viz. the Coxsackie and poliovirus groups. In fact, the 20 ECHO, 24 Coxsackie and 3 polioviruses have recently been joined together to form the Enterovirus group.[1]

The reasons for this grouping are the similarities between the three families of viruses: they are all common inhabitants of the human intestinal tract; they have epidemiological features in common; and they produce infections ranging from minor febrile illnesses to aseptic meningitis, and in the case of polioviruses, at least, to myelitis with paralysis.

ECHO viruses (whose name stands for Enteric Cytopathogenic Human Orphan) are the newest members of the enterovirus group. Their name is descriptive of their history and character. They have been isolated frequently from human excreta, their discovery actually being a by--product of tissue culture tests for the presence of polioviruses in fecal samples; they cause specific cytopathic changes in certain primate tissue culture cells, but (with some exceptions) do not produce disease in any of the usual laboratory animals; and they are—or were—largely "orphans" from the standpoint of their place as pathogens, since their relationship to disease was in the beginning quite unknown and is only gradually becoming apparent.[2]

EPIDEMIOLOGY

Although the exact *mode of spread* of ECHO viruses is not known, the evidence suggests that human association is the most important means. The pattern of infection in families is similar to that associated with Coxsackie and polioviruses, and it is probable that similar mechanisms are involved in infection with all three members of the Enterovirus group, the oropharynx being the portal of entry, the intestinal tract the primary site of attack, and the feces being the chief means of excretion.

Seasonal distribution of ECHO viruses is another characteristic shared with Coxsackie and polioviruses. Several studies have been carried out in which populations have been followed longitudinally over a period of several years.[3, 4] In all of these, a repeatable seasonal incidence of ECHO and other enteric virus excretion unassociated with disease has been observed, with as high as 90% of isolations (from fecal specimens) occurring between June and October. An exception is ECHO type 20 which has occurred as a winter epidemic in an orphanage for infants.[20] This virus is also unusual in that it is the only type (with the exception of type 10) which produces acute upper respiratory and gastrointestinal symptoms.

It was also found that excretion of these agents was several times higher in lower than in upper socioeconomic groups.[3] Surveys carried out in Mexico by Ramos-Alvarez and Sabin,[5] in the Philippine Islands by Hammon et al,[6] and in Egypt by Horstmann[7] indicate that as many as 30-40% of normal children in such areas may be excreting ECHO, Coxsackie, or polio viruses at a given time.

RELATIONSHIP TO DISEASE

With such wide distribution of ECHO viruses, the question arose early, as to whether these agents might not be normal or permanent inhabitants of the intestinal tract, like non-pathogenic bacteria such as E. coli. That this is not the case is indicated by the transience of the infection and carrier state, the large proportion of young children among carriers, the relative infrequency of carriage among adults, and the seasonal occurrence of the agents.

In the face of the above findings, criteria had to be established in order to determine whether the ECHO viruses might play an etiologic role in cer-

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tain disease syndromes. Thus it has been considered necessary to show that a high percentage with a given illness were infected with a particular ECHO virus only, and during the course of illness developed antibody rises against the agent. At the same time, the incidence of infection with this agent in normal individuals living in the same community at the same time must be shown to be low. The common sources of virus from infected persons are the feces, and to a lesser extent the naso-pharyngeal secretions; but the isolation of virus from the cerebro-spinal fluid has proved a relatively common occurrence among patients with aseptic meningitis, and this adds weight to probable etiologic association.

Using these criteria, within a short time of their discovery, it became apparent that some ECHO viruses were capable of producing summer epidemics of aseptic meningitis and associated non-specific febrile illness, and in fact were at times important causes of a great deal of illness,—so-called "summer grippe." To date, ECHO type 6,[8] type 4[9] and type 9[10] have been associated with major outbreaks of aseptic meningitis both in Europe and the U.S.; in the future it is highly probable that other types—at present both known and unknown—may behave similarly.

An example of the variability and mutability of the ECHO viruses is illustrated by two epidemics associated with ECHO 4. In one, which occurred in Marshalltown, Iowa in 1955, rash was not a part of the clinical picture. However, in an ECHO 4 epidemic in Sweden in 1956[11] rash was noted as a distinguishing clinical feature.

The extent to which illness due to ECHO viruses may spread through a community at a given time is illustrated by several illness surveys in areas in which the agents were known to be active. During the 1955 ECHO 4 outbreak in Marshalltown, Iowa, it was estimated that 16% or 3200 of the town's 20,000 population were involved. Of those cases which were documented, 55% had meningeal symptoms, and 45%, non-specific febrile illness.[9] Similarly in the 1957 ECHO 9 outbreak in Milwaukee, a survey of 2400 families indicated that there had been between 175 and 300 illnesses for every patient admitted to the hospital with aseptic meningitis.[12] It was estimated that approximately 50,000 persons in that city became ill as a result of ECHO 9 infection; the inapparent infection rate was relatively low (15%), but the incidence of minor febrile illness was high indeed.

PROPERTIES OF ECHO VIRUSES

Size. Except for ECHO 10, those that have been studied are relatively small, and have the same size range as the Coxsackie and polioviruses, viz. approximately 30 millimicrons.

Growth in tissue culture. Cytopathogenicity in tissue culture is a sine qua non of ECHO viruses. In fact, the early definition of "orphan" viruses included failure to produce disease in laboratory animals. Although this is in general still true of most ECHO types, certain strains of types 9 and 10 have been found to produce Coxsackie like disease in suckling mice.

Monkey kidney (MK) cells have proved the most sensitive system for the growth of ECHO viruses, although a few types grow in passage cell lines of human origin such as HeLa and others. A curious biologic behavior has been noted in that the kidney cells of one particular monkey, *Erythrocebus patas,* (the red hussar, or military monkey) are susceptible to certain ECHO viruses but not to others, while all types grow well in rhesus or cynomolgus kidney cells.[13] This characteristic has been used as an aid to more rapid identification of agents isolated from patients or carriers.

The characteristic, "patas negative" or "patas positive," correlates well with another one helpful in classification, viz., "plaque morphology."[14] The latter refers to a technique which is in some ways comparable to colony morphology in bacteriology. Instead of a petri dish, a stoppered 3 oz. medicine bottle is commonly used, on one wall of which a monolayer of MK cells is grown in a continuous sheet. The virus (in doses of 10-50 infectious units) is inoculated on to the sheet, and the layer of cells is then covered with agar containing neutral red, a vital stain. As the virus particles grow they cause destruction of the cells; the cessation of cell metabolism results in release of neutral red from the cells and a decolorized area or *plaque* appears in the otherwise rosy pink agar. The shape and size of the plaque is characteristic for different groups of ECHO viruses, as well as for Coxsackie and polioviruses (Fig. 1).

ANTIGENIC CHARACTERISTICS.

Antigenic diversity is one of the outstanding features of the ECHO group, and forms the basis of their classification into 20 serological types. The typing has been complicated by the discovery that some newly isolated strains of certain types have broader antigenic relations than their prototype strains and are only poorly or partially neutralized by antisera against the latter. The new strains have been called "prime" strains, and for certain types, several primes are known (e.g. 6, 6′, 6″). Another difficulty has been the discovery of some antigenic crossings between certain prototypes, e.g. 1,8 and 12. These serological problems are mentioned only to indicate the immense complexity of the virologists task in sorting out and characterizing the various ECHO viruses.

Actually, it seems that the 20 known types of these agents represent only a beginning, for already many strains have been isolated which do not fall into any of the presently known types. As soon as these new agents can be shown by means of neutralization and complement fixation tests to represent new antigenic types they will be assigned numbers by the Committee on the Enteroviruses of the National Foundation for Infantile Paralysis, a body which has been set up to facilitate the study and classification of these ever more complex agents.

CLINICAL CHARACTERISTICS OF ECHO VIRUS INFECTIONS

Aseptic meningitis and associated non-specific febrile illness. The illnesses associated with enteroviruses are indicated in Table I. There are no distinguishing clinical features which indicate that in a given case the infection is due to a member of the ECHO group rather than one of the other enteroviruses, but certain characteristics are helpful in suggesting the possibility. One of these is the presence of rash. To date, rash has been noted in infections with ECHO virus types 4, 6, 9, and 16, and there has been an associated enanthem with types 9 and 16. In addition, an exanthem has occurred with certain Coxsackie A-9 infections, and with infection associated with new strains not belonging to any of the 20 designated ECHO types. Both aseptic meningitis and cases of mild febrile illness have been associated with rash. The eruption is commonly erythematous, maculo-papular, occasionally petechial, and a single virus type can produce any of the various types of eruption. The face, trunk, and extremities may be involved, or the lesions may be confined to the face; occasionally there is extension to the palms and soles, but this is rare. The character and distribution of the eruption is similar to that of rubella, and indeed sporadic cases without meningeal signs or cases occurring early in an epidemic are frequently mistaken for rubella. This diagnosis can usually be ruled out by the absence of posterior cervical chain lymph node enlargement, and the summer occurrence.

In ECHO 9 infections, which swept over most of Europe and England in 1956 and reached the U.S. in 1957, rash, appearing early in the course, sometimes before any other sign and lasting 5-6 days, was a prominent feature, although by no means always present. Sabin[12] noted in the 1957 Milwaukee ECHO 9 outbreak that age was an important determinant as far as the rash was concerned: in infections in children under 3, virtually 100% exhibited rash; between 5 and 15, 40-50%; and over 15, considerably fewer. A similar pattern was observed in Connecticut cases in 1957.[15] An *enanthem* has been observed in as many as 1/3 of the cases of ECHO 9 infection.[21] Characteristically this consists of white or greyish dots on the buccal mucosa opposite the molar teeth; occasionally small ulcers or vesicles appear on the tongue also.

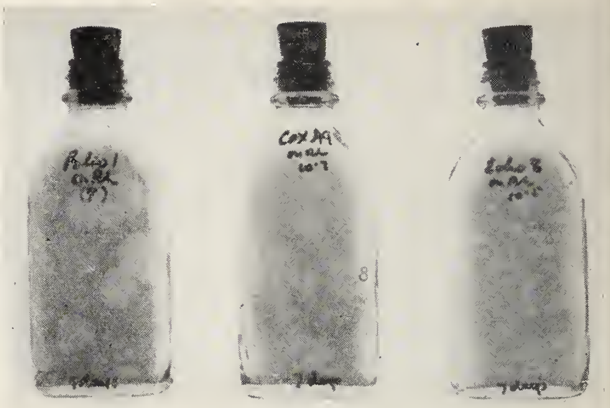

Figure I

Comparison of plaque patterns of representative Enteroviruses on rhesus kidney cell cultures, 7 days after seeding. Poliovirus Type 1, Mahoney; Coxsackie virus A-9; ECHO virus Type 8. (Picture courtesy of Dr. G. D. Hsiung, Section of Epidemiology and Preventive Medicine, Yale University).

The diverse etiology of similar illnesses, and the difficulty of differential diagnosis on clinical grounds was illustrated in family outbreaks occurring simultaneously in Bristol, Connecticut during the summer of 1957.[15]* Figures 2 and 3 show the course of events during early August in two families whose illnesses were similar, the younger children in both, exhibiting rash. In the one, Coxsackie A-9 was isolated from several members, while in the other, ECHO type 9 was the responsible agent. A third agent, a new one not belonging to any of the known 20 ECHO types, was active in the same community at the same time, and produced family outbreaks of similar illness with the same type of rash as occurred in the Coxsackie A-9 and ECHO 9 infected families.

Rash (also similar to that of rubella) was a distinguishing feature of the two recorded epidemics of the so-called "Boston Exanthem" disease, which occurred in Boston in 1951 and in Pittsburgh in 1954[16]; the disease has been demonstrated by Neva to be caused by a virus antigenically related to ECHO 16. The time of appearance of the skin eruption in Boston exanthem is characteristic: it appears *after* the fever and other acute symptoms have subsided. Confusion with exanthem subitum in young children is therefore not infrequent. So-called "Boston exanthem" differs from exanthem subitum, however, in age distribution, since adults as well as children are affected; and in severity of illness: in children, the course is milder, with average temperatures of 101°-102° for 2 days before the eruption, while 3 or more days of fever of 104°-105° are usual with exanthem subitum. Adults with Boston exanthem usually have a more severe course than do children: abrupt onset with chills and fever, muscle aches and pains, burning of the eyes, occasionally sore throat and crampy abdominal pain. As with children, the symptoms subside after 48-72 hours, and the rash follows. It is not a constant feature as it has been in children, and is in general milder and scantier, but has the same rubella-like character and distribution, and lasts only 24-36 hours.

Aside from rash, the illnesses associated with ECHO virus infections have not been significantly different from aseptic meningitis or mild non-specific febrile illnesses associated with other enteroviruses. Moderate fever, severe headache, stiff neck and/or back have been the most prominent features in those with central nervous system involvement. In certain outbreaks severe muscle pain has occurred, and in one due to ECHO 9 relapses were reported as not uncommon.[10]

The occurrence of a biphasic course similar to that found in poliomyelitis has been noted in several epidemics, but this does not seem to be as common a feature as in children with poliomyelitis, 40% or more of whom may show this feature. If any difference can be noted between the "minor illness" of first phase or abortive poliomyelitis and the febrile illnesses associated with ECHO viruses, it is one of degree: the "minor illness" or abortive poliomyelitis is usually a milder affair, most often only 24 hours in duration, and less apt to be associated with headache and vomiting.

Spinal fluid findings have been, as in other forms of aseptic meningitis: lymphocytes predominate and total counts are usually in the range of 100-300, although counts of 3,000 or more have been noted. A predominance of polymorphonuclear cells has been recorded early in the course in some cases, followed later by a shift toward high lymphocyte counts. Isolation of ECHO viruses from spinal fluid has been of relatively common occurrence; in one outbreak of aseptic meningitis the spinal fluid yielded ECHO type 9 in 29 of 59 specimens.[10]

TABLE I.

ASSOCIATION OF ENTEROVIRUSES WITH HUMAN DISEASE*

ENTEROVIRUS	NUMBER OF RECOGNIZED SEROLOGICAL TYPES, MARCH 1958	ASSOCIATED DISEASE
Poliovirus	3	Paralysis (complete to slight muscle weakness) Aseptic Meningitis (non-paralytic poliomyelitis) "Minor illness" or abortive poliomyelitis
Coxsackie viruses Group A	19	Herpangina Non-specific febrile illness — chiefly in summer Non-specific febrile illness with rash (A-9). Aseptic Meningitis (A-7, A-9)
Group B	5	Pleurodynia Aseptic Meningitis Non-specific febrile illness with pharyngitis Myocarditis or encephalomyocarditis during neonatal period and early childhood Mild paralysis (?)
ECHO viruses	20	Aseptic meningitis (Types 2, 3, 4, 5, 6, 7, 9, 14, 16, 17) Aseptic meningitis with rash (Types 4, 9) Mild paralysis (Type 6) Non-specific febrile illness — "summer grippe" Non-specific febrile illness (summer with rash (Types 4, 6, 9) "Boston Exanthem" (Type 16) Summer Diarrhea of infants and children (Type 18 and others) Acute upper respiratory & gastrointestinal symptoms (Types 10, 20)

*Modified from "The Enteroviruses", by the Committee on the Enteroviruses, N.F.I.P. (1).

White blood cell counts are commonly in the normal range.

Neurological lesions. The extent to which ECHO viruses are capable of producing CNS damage in man is not clear. In an epidemic in Boston due to ECHO 6, more than half the 37 persons studied exhibited some muscle weakness of mild to moderate degree.[17] Using the scoring and terminology used for poliomyelitis patients, these individuals

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*I am indebted to Dr. Joyce Deutsch, Bristol, Connecticut, for making possible a study of these families.

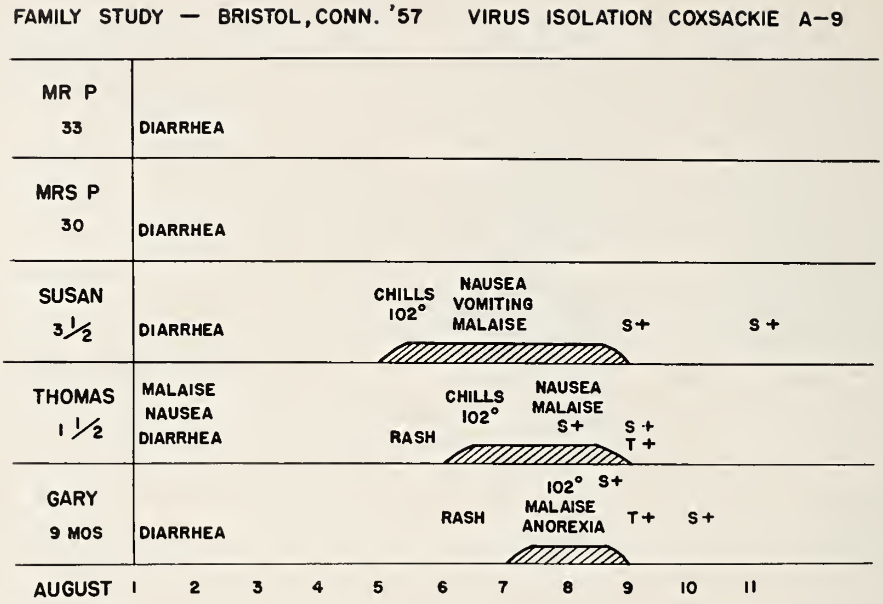

FIGURE II
Shaded areas represent fever. T+ and S+ indicate throat swabs and stools positive for Coxsackie A-9 virus.

were diagnosed as "paralytic." By the 50-70 day convalescent evaluation, the abnormalities had diminished considerably, and after 2 years there was no residual weakness in any individual.

Encephalitic signs have occurred in a few persons infected with ECHO 9, and Verlinde[18] reported a fatal case in which ECHO 9 virus was isolated from the medulla. It is probable that the ECHO viruses, like polio and Coxsackie viruses, have a spectrum of biologic behavior, and certain strains or mutants will be found to have greater pathogenicity and neurotropic potential than others.

Summer diarrhea. Evidence for the association of ECHO viruses with "undifferentiated diarrheal syndrome" in children under 4 years of age has been presented by Ramos-Alvarez and Sabin.[19] Types 2, 6', 7, 8, 10', 11, 12, 14, 18 and 19 have been isolated from such cases and are of probable etiologic significance. Type 18 has recently been demonstrated to be responsible for an outbreak of non-febrile diarrhea in a premature nursery[22]; to date this type has been isolated from children only when they had diarrhea, and not from well children.

LABORATORY DIAGNOSIS OF ECHO VIRUS INFECTION

This depends on the availability of a viral diagnostic laboratory equipped with monkey kidney cell tissue cultures, and typing sera against the known ECHO types. Virus isolation from stools or rectal swabs, throat swabs, and CSF can be accomplished readily in a few days, but identification of the isolate by means of tissue culture neutralization tests usually requires another week or more. A four-fold rise in antibodies against a given type between acute and convalescent serum specimens is presumptive evidence of infection, even though no virus is isolated.

SUMMARY

ECHO viruses, a rapidly growing family of 20 recently discovered agents belonging to the enterovirus group, are common inhabitants of the human intestinal tract, particularly in the summertime. In addition to subclinical infection certain types may cause mild febrile illness, diarrheal syndromes, or aseptic meningitis. Some types have been associated with widespread epidemics in Europe and the U.S. A rubella-like rash has been a prominent feature of epidemics due to types 4, 9, and 16. Antigenic diversity and clinical surprises have been the rule in the short history of ECHO viruses. There is reason to believe that these characteristics will continue, and that the family will grow in number and complexity.

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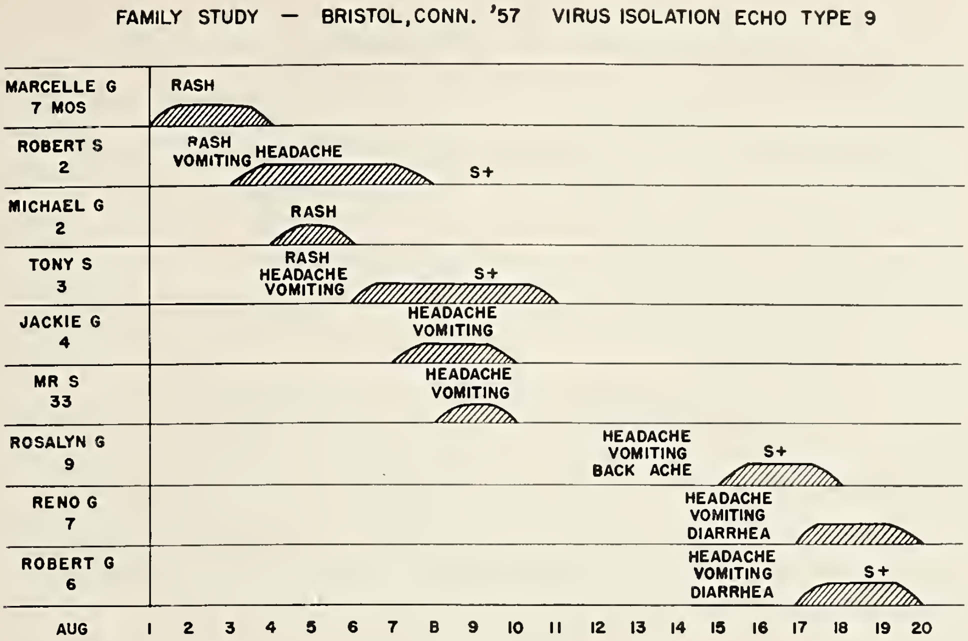

Figure III

Legends as in Fig. 2. S+ indicates stool specimen positive for ECHO virus Type 9.

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Diverticulitis

As medical progress continues to increase man's longevity, problems of an ageing population become more prominent. Disease states resulting from this situation are seen with more frequency, and diagnostic and therapeutic acumen must increase proportionally. Diverticulosis coli is such a syndrome. Chronic constipation of the middle-aged individual coupled with a loss of bowel muscular tone sets the stage for development in so many persons in later life of diverticulosis and in about 10 per cent of them, diverticulitis.

Early recognition of the syndrome of constipation, lower abdominal pain, and occasional melena should prompt investigation by roentgenography of the colon. If diverticulosis is found, then prompt therapy to include low residue diet and the use of oral detergents should be started. Medical therapy of the mild, uncomplicated diverticulitis is also possible and emphasizes diet and intestinal antibiosis.

Unfortunately, however, the diagnosis is usually not made until complications of diverticulitis are present—obstruction, perforation, fistulization, hemorrhage. The acute problem must be met with despatch, for the longer one delays, the greater the chances for further complications developing. Carcinoma may present all or any of these features and must always be kept in mind.

If a localized reaction alone is present with obstruction or perforation paramount, primary resection with anastamosis may be feasible. This is unusual, however, and more often a complete diverting transverse colostomy is necessary with drainage of an abscess if present. During the succeeding weeks, roentgenographic studies should be done to define more completely the situation in the colon; and if carcinoma can be ruled out satisfactorily, resection delayed until the inflammation has subsided. If carcinoma is a reasonable possibility, the delay between transverse colostomy and resection must of necessity be shortened. Resection is followed by careful roentgenographic studies to be sure that no anastamotic leak exists and then closure of the colostomy is accomplished. Such a program will result in survival without further problems in almost all patients with diverticulitis and its complications.

Scholarship and Success

"The secret of the care of the patient is
in caring for the patient."
—*Francis Peabody.*

In an interesting editorial in the *Saturday Evening Post* it was noted that two philanthropic brothers named Hoffman have set up a foundation at Harvard University to provide for "needy students who do not quite make the scholarship grade." The reason for this action was that the donors had come to the conclusion that "Very often a student who is not too outstanding in college life may make good in later life." This opinion coincides with the belief of the writer, based on long experience as a teacher of medicine, that some students who make poor grades in medical school, who indeed may actually be dropped for this reason, may turn out to be much more successful practitioners than bookworms who pass examinations with a high mark.

These preliminary remarks bring up two questions: (1) what is scholarship? and (2) what constitutes success in medicine? In the broad sense scholarship is "the possession of knowledge gained by study," but we must not forget that, as Gibbon the historian said, "Everyone has two educations: one which he receives from others, and one, the more important, which he gives himself." As to success, in general a favorable result of effort to attain an end, ideas will vary according to occupation, personality and outlook. To the business man success usually means financial gain, to the physician this may be incidentally achieved but the real object of medical endeavor is to be of assistance to the sick, either indirectly by medical research or by the expert application and interpretation of laboratory tests, or directly by practising some branch of the healing art.

The point which should be stressed is that the mere possession of medical knowledge is only part of the art of medicine and that there are physicians whose record in medical school was mediocre but who achieve outstanding success as practitioners. This can only be explained by the fact that they possess characteristics lacking in some, but by no means all, students who go through medical school with high marks. Probably these characteristics consist of a capacity to understand and to manage people and, above all, the ability to impress patients with the fact that the doctor comprehends their difficulties and is completely sympathetic. In a word, the ability to inspire confidence.

G. B.

Exhaustion and Disease

> "What we have to deal with are not the limits to which men may go without physical exhaustion, but the limits within which they may work with zest and spirit and pride of accomplishment. When zest departs labor becomes slavery."
>
> —*Owen D. Young.*

Some recent figures showing that in men between the ages of 45 and 65 the risk of dying of cardiac or vascular disease has increased 25 per cent in the past generation and that in women of the same age group the opposite has been true, lead one to speculate on the causes of this phenomenon.*

A recent statement in the daily press by a European who had worked in this country for a couple of years probably throws some light on the problem. When asked whether he planned to stay in the United States he replied that he had no intention of so doing because Americans had not learned how to live. What he meant by this statement was, we suspect, that the *pace* of work in this country is very much faster than it is in European countries. Consequently the chances of exhaustion among Americans, with interference with a normal existence, are much greater than in Europeans.

It is doubtless true that the great success of the American people in commercial and professional matters is in part due to their ingenuity in the invention of labor-saving machinery and their talent for organization. It is likewise true that factors other than exhaustion no doubt play a role in the pathogenesis of circulatory diseases, as recent dietary studies indicate. Nor is the increase noted in cardiovascular diseases likely to be as great in organized workers with their hours of work fixed by law or arbitration as in executives or professional men who have no such governing limitations.

The story of the stated hours of work per diem does not, however, answer the question of the role of overwork, for many men bring work home with them and the need for and capacity to sleep vary widely in different individuals. One young executive recently remarked to the writer that the "almighty dollar" was responsible for the pace of American business recalling opinions expressed by the ancient Greek philosopher Diogenes and also by Saint Paul in his "Epistle to Timothy" that "the love of money is the root of all evil." Whatever the motives, it is clear that many men work too hard or, to put it in another way, fail to balance their working capacity against their powers of recuperation. While the writer is no advocate of a life of leisure, which creates problems of its own, he believes that men during their active years should avoid exhaustion, which favors the acquisition of infectious diseases and their complications and may be a factor in the development of cardiovascular lesions. One may add that exhausted individuals are often unable adequately to avail themselves of the amenities of family life and of their share of the varied diversions which should form a part of normal existence.

G. B.

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*Science News Letter 1955, *67*, 44.

Correspondence

The Editor,
Connecticut State Medical Journal,
New Haven.

Dear Sir:

The Connecticut Allergy Society, after a poll of the membership, passed the following resolution.

The Connecticut Allergy Society is in full agreement with the New England Society of Allergy in declaring that the recently publicized "one shot" method of treatment of pollinosis is potentially a very dangerous method. It is still in the experimental stage, and further development is necessary before it may be considered as safe.

Sincerely,
Marvin Mogil, M.D.
Secretary
Connecticut Allergy Society

IN MEMORIAM

JOYCE, WILLIAM M.—Middletown; Jefferson Medical College, 1917; started practice in Middletown in 1922, specializing in otolaryngology and ophthalmology; prior to that time served on medical staffs of New York Foundling Hospital and the Manhattan Eye, Ear, Nose, Throat Hospital; served with Army Medical Corps in both World Wars; staff member in EENT at Middlesex Memorial Hospital; died July 1, aged 66, at his home in Higganum following a long illness.

POE-ENG YU—Middletown; University of Michigan School of Medicine, 1939; psychiatrist at Connecticut State Hospital, Middletown, for past 10 years; a native of Foochow, China, she served as a major with the Army Medical Corps in World War II; at one of her stations, the Cushing General Hospital, a hospital publication listed her as "the first and probably only Chinese woman doctor to be commissioned in the U. S. Army"; she arrived in this country in 1926 to study nursing, later entered the University of California where she graduated cum laude; entered military service in 1942 and was discharged in 1947; died at Massachusetts General Hospital July 28 at age of 61.

SWENSON, ARTHUR C.—Middlebury; Yale University School of Medicine, 1902; medical examiner for Middlebury 22 years; member of medical staff at Waterbury Hospital and at time of death was on honorary staff in urology; an active member of the State Medical Society for more than 50 years; treasurer of the Waterbury Medical Association for many years; died July 19 at Waterbury Hospital, aged 88, following a long illness.

Books Received

Correlative Neuroanatomy and Functional Neurology. By Joseph G. Chusid, M.D. and Joseph J. McDonald, M.D., Ninth Edition. Illustrated by Ralph Sweet. $4.50. 336 Pp. Lange Medical Publications, Los Altos, California.

Review of Physiological Chemistry. By Harold A. Harper, Ph.D., Associate Professor of Physiological Chemistry, University of California School of Medicine, San Francisco. Sixth Edition $4.50. 366 Pp. Lange Medical Publications, Los Altos, California.

How to Live With Diabetes. By Henry Dolger, M.D., Chief, Diabetes Clinic, Mt. Sinai Hospital, New York and Bernard Seeman. $3.50. 188 Pp. W. W. Norton & Company, Inc., New York.

Bending the Twig. By Augustin G. Rudd. Chairman, Educational Committee, New York Chapter, Sons of the American Revolution, 15 Pine Street, New York. $3.95. 201 Pp. The Bookmailer, Murray Hill Station, New York.

Connecticut Academy of General Practice Seventh Annual Scientific Assembly

Hotel Statler, Hartford
Thursday, October 2, 1958

Morning session: Capitol Ballroom

Moderator: Edwin F. Trautman, M.D., President, Connecticut Academy of General Practice, Trumbull.

8:30- 9:30	Registration
9:30-10:10	Steroid Therapy—Roger L. Black, M.D. National Institute of Arthritis and Metabolic Diseases, Bethesda, Md.
10:10-10:50	Jaundice—Bentley P. Colcock, M.D. Lahey Clinic, Boston, Mass.
10:50-11:30	Arteriosclerotic Brain Disease—Francis M. Forster, M.D. Professor and Director, Department of Neurology, Georgetown University Medical Center, Washington, D. C.
11:30-12:00	Questions and Panel Discussion
12:30- 2:00	Luncheon for physicians and wives—Ballroom Chairman—Peter J. Scafarello, M.D. Treasurer, Connecticut Academy of General Practice, Hartford. Speaker—"Religion and Medicine"—Reverend Albert T. Mollegen, S.T.M., D.D. Professor of Christian Ethics, Protestant Episcopal Theological Seminary in Virginia, Alexandria, Va.

Afternoon session: Ballroom

Moderator:: Michael S. Shea, M.D., Counsellor, Connecticut Academy of General Practice, New Haven.

2:30- 3:10	Whiplash Injuries—David M. Bosworth, M.D. Professor and Director, Orthopedic and Traumatic Surgery, New York Polyclinic Medical School and Hospital, New York, N. Y.
3:10- 3:50	Treatment of Cancer by Perfussion—Edward T. Krementz, M.D. Associate Professor of Surgery, Tulane University School of Medicine, New Orleans, La.
3:50- 4:05	Recess—Coffee
4:05- 4:45	Emotional Problems in Children—John G. Young, M.D. Clinical Professor of Pediatrics, Southwestern Medical School, University of Texas, Dallas, Texas.
4:45- 5:15	Questions and Panel Discussion
5:45- 6:45	Reception—Ballroom

Wives of Physicians are Encouraged to Attend

No fee is required for attendance at social or scientific sessions from 8:30 A.M. to 6:45 P.M.

Six hours of formal study credit will be allowed by the American Academy of General Practice for attendance at this symposium.

Meetings

September 10—Academy of General Practice. Cedarcrest Sanitorium, Newington.

September 11 & 16—Nursing conference on "Problems of patients and their families where cancer and other chronic disease are present." University of Bridgeport, Bridgeport.

September 15-19—Institute for Physical Therapists. Grace-New Haven Community Hospital, New Haven.

October 8-9—Connecticut State Nurses Association. Annual Meeting. Hotel Statler, Hartford.

October 20-23—American Academy of Pediatrics. Annual Meeting. Palmer House, Chicago.

November 13—Connecticut Public Health Association. Annual Meeting. Hartford.

November 20—CEA-Winslow Lecture. Brady Auditorium, New Haven.

Gastroenterological Convention

The 23rd Annual Convention of the American College of Gastroenterology will be held at the Jung Hotel in New Orleans, La., on October 20, 21, 22, 1958.

Cardiac Arrest, Round-Table Discussion
Sept. 8, 7:30 P.M.
Newington Hospital for Crippled Children
Newington

Symposium on Arthritis and Rheumatism

The Greenwich Hospital Association and the Greenwich Health Association will present a "Medical Symposium on Arthritis and Rheumatism" on Wednesday, October 15th, 1958 at 8:15 p.m. at the Havemeyer Auditorium, Greenwich Avenue.

The following speakers will discuss osteoarthritis; rheumatoid arthritis, gout and bursitis—diagnosis, treatment and rehabilitation:

L. Maxwell Lockie, M.D. Rheumatologist at Buffalo General Hospital, N. Y. and Consultant in Arthritis at Meyer Memorial and Children's Hospitals, Buffalo, New York.

William H. Kammerer, M.D. Attending Physician, Hospital for Special Surgery, Rheumatic Disease Division, N. Y. C., and Assistant Professor of Clinical Medicine, Cornell, Medical School, N. Y. C.

Robert H. Manheimer, M.D. Medical Director, New York Arthritis and Rheumatism Foundation.

Marjorie Patterson, M.D. Rheumatologist, Hospital for Special Surgrey, New York City and Greenwich Hospital. Gray Carter, M.D., Director of Medical Services, Greenwich Hospital will preside.

Conference

A National A. M. A. Planning Conference on Medical Society Action in the Field of Aging is being called in response to recommendations made at various regional meetings sponsored by the Committee on Aging. The meeting will take place Saturday and Sunday, September 13-14, 1958 at the Drake Hotel, Chicago, Illinois.

The purpose of the program is to coordinate activities of the medical profession in the field of aging.

The Connecticut State Medical Society will be represented by the Chairman of the Committee on Aging, Dr. John Donnelly of Hartford.

Announcements

Aldo L. Bellucci, M.D., announces the opening of an office for the practice of internal medicine at 34 Connecticut Boulevard, East Hartford.

Richard J. Cobb, M.D., announces the opening of an office for the general practice of medicine in Norfolk.

George R. Dalton, M.D., announces the opening of an office for the practice of pediatrics and allergy at 37 Campfield Avenue, Hartford.

John F. Farrell, M.D., announces the opening of an office for the practice of surgery at 386 West Avenue, Norwalk.

Louis E. Garston. M.D., announces the opening of an office for the practice of dermatology at 17 Union Street, Winsted, in addition to his office in Torrington.

Lowell S. Hunter, M.D., announces the opening of an office for the practice of internal medicine at 40 Wall Street, Madison.

Gabriel A. Ingenito, M.D., announces that his office has been moved from 181 Edwards Street to 840 Howard Avenue, New Haven.

William E. Lattanzi, M.D., announces the opening of an office for the practice of pediatrics at 323 Main Street, West Haven.

Simon Meleck, M.D., announces his association in general practice with Francis D. Ellis, M.D., 235 West Main Street, New Britain.

Joseph A. Montimurro, M.D., announces the opening of an office for the practice of obstetrics and gynecology at 292 Sound Beach Avenue, Old Greenwich.

Cecilia A. Narowski, M.D., announces the opening of an office for the practice of pediatrics in Ansonia.

Hugh E. O'Reilly, M.D., announces the opening of an office for the practice of obstetrics and gynecology in association with John LaCava, M.D. and Henry Kaplan, M.D., at 52 Main Street, New Britain.

John C. Polito, M.D., announces the opening of an office for the practice of surgery in association with his father, Frank L. Polito, M.D., at 24 Church Street, Torrington, and also the opening of an office at 17 Union Street, Winsted.

Juanita B. Rentsch, M.D., announces the opening of an office for the practice of pediatrics in Glastonbury.

Salvatore M. Santella, M.D., announces the opening of an office for the general practice of medicine at 4150 Main Street, Bridgeport.

Ralph D. Schwartz, M.D., announces the opening of an office for the practice of internal medicine at 71 West Street, Danbury.

Dana M. Sheldon, M.D., announces that his Milford office has been moved to the Firelite Shopping Center, Old Tavern and Boston Post Road, Orange.

Lambros Siderides, M.D., announces the opening of an office for the practice of internal medicine at 1603 Summer Street, Stamford.

William O. Sires, M.D., announces the opening of an office for the practice of psychiatry on Sherman Street, Fairfield.

Philip Warren, M.D., announces the opening of an office for the practice of pediatrics in association with Harold Rosenberg, M.D., at 24 Central Avenue, Waterbury.

Harry T. Wood, Jr., M.D., announces the opening of an office for the practice of obstetrics and gynecology at 10 Dale Street, West Hartford.

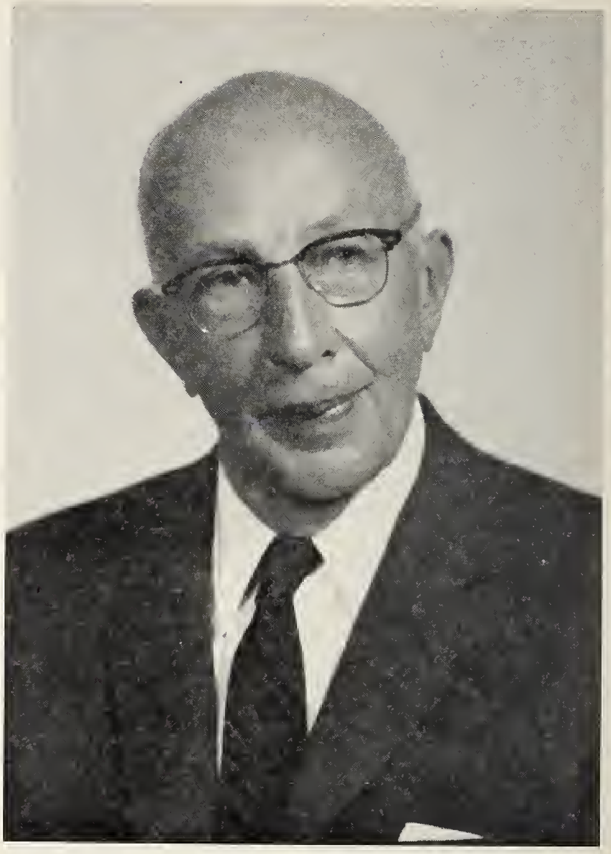
Connecticut State Medical Society

First Vice-President

A distinguished urologist of international recognition, Doctor Deming began his early education at Kimball Union Academy and Bowdoin College where he was graduated with an A.B. degree. His medical career, begun and still pursued at Yale and New Haven, has been marked by vigor, intelligence, and constant striving for the scientific improvement of his chosen field. As a medical student, he was awarded the Ferris Anatomy Prize, the Parker Prize, and shared the Key's Prize, and was elected to membership in Sigma Xi, Alpha Omega Alpha and received his doctorate in medicine Cum Laude.

Following graduation from the Yale University School of Medicine, he began an internship and residency in surgery at New Haven Hospital to be followed by an instructorship in Surgery at Yale. Having become interested in urology, he served a residency at the Brady Urological Institute of Johns Hopkins under the tutelage of Dr. Hugh Young.

Returning to Yale, he became a member of the surgical staff charged with developing the Urology section. During the ensuing thirty-three years, the section grew to its present stature under his guidance. Known far and wide for his high degree of surgical skill and clinical acuity, he has contributed immeasurably to raising the standards of urologic practice. Hundreds of young men and women now practicing have benefited from his abilities as a teacher and his insistence upon only the highest standards. During these years he contributed dozens of scientific articles based on research and clinical experience to medical periodicals and textbooks. These contributions were recognized by his Alma Mater, Bowdoin, in 1935 in presenting him with the honorary degree of Doctor of Science. In addition to his duties at Yale, he has served as consultant to many hospitals in Connecticut (Derby, Meriden, Norwalk, Stamford, Willimantic, Middlesex) and to the Veteran's Administration Hospitals.



Clyde Leroy Deming, M.D.

Long a champion of organized medicine, Doctor Deming has participated in such activities from county to international level. A member of the American Medical Association, Connecticut State Medical Society, the New Haven County Medical Society, and the New Haven Medical Society, he has just completed a term as president of the latter group. He has been given special recognition amongst those of his own specialty. From 1935 to 1937 he served as president of the New England Section of the American Urological Association as well as becoming a charter member of the American Board of Urology. Subsequently, he served the American Urological Association as secretary and in 1944 to 1946 as its president. In 1948 he became president of the American Association of Genitourinary Surgeons and was honored in the same fashion in 1952 by the Clinical Society of Genitourinary Surgeons. Currently, he is serving as Chairman of the American Committee of the International Urological Association. He has also participated as a member in the New England Surgical Society and in the activities of the American College of Surgeons as a fellow.

A man of great dignity and charm, Doctor Deming brings with him a native wit and sagacity in true New England fashion. In the current controversy in our society, his breadth of view, his insistence upon fundamental principles, and his championship of the physician have contributed greatly.

B. Marvin Harvard, M.D.

VERBATIM PROCEEDINGS

Special Meeting — House of Delegates
The Connecticut State Medical Society

Society Medical Building
364 Whitney Avenue
New Haven, Connecticut
July 22, 1958
Michael C. Schreff
Court Reporter

. . . Meeting of the House of Delegates of the Connecticut State Medical Society, held at the Society Medical Building, 364 Whitney Avenue, New Haven, Connecticut, on Tuesday, July 22, 1958 at 2 P.M. . . .

Dr. Scully: We'll have the Secretary call the roll.

. . . Dr. Richards called the roll, a copy of which appears at the end of this transcript. . . .

Dr. Scully: A quorum being present, I hereby declare the meeting in session.

We'll now have the call for the meeting read by Dr. Richards.

Dr. Richards: I think I can read it from here. The Council of the Connecticut State Medical Society had a meeting on July 8, 1958, voted to call a special meeting of the House of Delegates on Tuesday, July 22nd, 1958, to consider the following items of business:

(1) To withdraw the sponsorship of the Society from Connecticut Medical Service.

(2) To receive and act upon the report of the Special Subcommittee of the Council with respect to the organization, incorporation and control of the Connecticut State Medical Society of a planned design to provide prepayment for physicians' services.

Dr. Scully: You have now heard the call for the meeting. And at this time, I would like to welcome Dr. Walter Russell, our President. Possibly, Dr. Russell, you would like to say a few words.

Dr. Russell: Ladies and Gentlemen, members of the House of Delegates of the Connecticut Medical Society, you have before you today a problem which is unique in our State Society, and a problem which concerns many persons in the State, the doctors of CMS and the public.

I hope your deliberations will be with dispatch and with deliberation, and I'm sure that all here are well educated ladies and gentlemen, and capable of accumulating their own thoughts. That's all I have to say.

Dr. Scully: Thank you very much, Dr. Russell. We will now have the report of the Chairman of the Council and presentation of recommendations. Dr. Feeney?

Dr. Feeney: Mr. Speaker, Mr. President, Members of the House of Delegates and Visitors,

In my introductory remarks, I would wish to make a few comments concerning your Council and the House of Delegates of the Connecticut State Medical Society. I feel such a statement is necessary in view of the varied reports in the press suggesting the control of the State Medical Society has been captured by an insurgent group, not representative of the rank and file of the membership. Let me state for the record, that the State Medical Society consists of representatives of eight County Medical Associations of Connecticut, all of which have by-laws and provide for representation in the policy making bodies of the State Society.

The meetings, this spring, of County Medical Associations were never more fully attended and all officers and delegates present today were elected to office in accord with established by-laws.

The present Council met following the annual meeting in April and although initially it was evident there might be two factions, this atmosphere quickly disappeared when the facts which I shall report upon today became generally known. I am pleased to report, that desirable unity has and continues to prevail in your Council. The actions taken by the Council stand supported by overwhelming majority votes of its membership, and in many actions, the vote has been unanimous. The time and devotion given by your Council to your affairs surpasses any Council contribution over the years I have been privileged to serve with that body.

The Connecticut State Medical Society is today engaged in a bitter controversy not of its making and which it deeply regrets. Agreements soberly arrived at between the Connecticut State Medical Society and Connecticut Medical Service, Incorporated have been unilaterally abrogated in a reckless manner by Connecticut Medical Service, Incorporated. Numerous attempts at negotiation of differences have been made by the Council but when we are asked to compromise on honesty and integrity, we cannot submit.

In order to understand fully the problems faced by the Society, it is essential that some historical background be presented. In 1939, through the agency of the Connecticut State Medical Society, the Connecticut Legislature passed an enabling act for tax-free, non-profit medical service corporations. Late in 1947, seven public spirited citizens incorporated such a corporation. The House of Delegates at its Annual Meeting on April 27, 1948, appointed a Committee on Prepaid Medical Care and charged that Committee with carrying out the intent of a resolution to the effect, that the House of Delegates approve a prepaid medical plan, including service and indemnity features to be written by a non-profit organization, and that the majority of the directors of this nonprofit organization must be physicians. The House of Delegates later agreed, that the Board of Directors of the Corporation consist of six physicians and six laymen. The House of Delegates was acutely aware that this proposed corporation —called CMS, Incorporated—would be selling the services of physicians which it did not own. Services of physicians, which unless the official ratification of the Society was obtained, it could commit various groups within the Medical Society to confiscatory service benefit provisions. To make for better understanding, certain principles were agreed upon and some of the pertinent principles were as follows:

(1) "It is accepted as a principle of operation, that a committee composed of recognized medical practitioners be nominated by the Connecticut State Medical Society and be appointed by the Board of Directors of CMS, Incorporated, which will have authority and responsiblity for advising in regard to all professional matters and adjusting differences on disputes involving medical practices under the plan."

(2) "It is recognized that the inclusive income level defining the area within which the program will provide complete service coverage should be such as to cover at least one-half of the working population and their families."

(3) "It should be understood and agreed, that for an indefinite initial period or until reasonable reserves are established, it may be necessary for the doctors to accept partial payment, with the balance not obligatory, deferred. The Par-

ticipating Physicians would thus help to underwrite the plan and share responsibility for avoidance of abuse."

(4) "It is recognized as paramount, that the success of this plan would depend greatly upon complete understanding, cooperation, and harmony at all times between the Medical Profession of Connecticut and Connecticut Medical Service."

(5) "It is recognized, that any prepayment medical service plan which will serve the public must not jeopardize the proper interests of the medical profession, either professionally or economically."

These principles, together with certain other principles, some thirteen, but these are the pertinent ones.

These principles, the original CMS contract, the by-laws of CMS and various agreements were presented to the House of Delegates and adopted by the House of Delegates. As a result, CMS came into being when the Insurance Commission of the State of Connecticut was presented with agreements signed by 1500 members of the Connecticut State Medical Society, indicating they would underwrite the program, if it reached any financial crisis. In addition, the State Medical Society gave CMS a $5,000 non-interest bearing loan.

I would just like to pause here. It seems, that in the last few days, that some gentlemen have been having difficulty with the understanding of the word "sponsorship." According to Webster's Dictionary, a sponsor is one who will bind himself to another in case of default.

There are two principles here; the principle of underwriting the program in which the doctor agreed to pro rate his fees, if necessary, and the State Society giving to CMS a $5,000 non-interest bearing loan are clearly indicative of sponsorship.

CMS started business with the clear understanding that the corporation should at all times be responsive to the State Medical Society and its component County Associations for the interpretation of the corporation's policies, practices and operations; also, for the maintenance of cordial and effective liaison.

Until 1954, CMS reported any proposed changes in CMS policies to the State Medical Society. In 1954, at the House of Delegates Meeting, a new plan was presented, and the House tabled the matter to allow for further understanding and discussion of the program. Shortly after the House of Delegates Meeting, the Board of Directors of CMS, without consulting any official County Medical or State Medical policy making body, held a referendum, and on the basis of the referendum, sold the contract, notwithstanding the fact, that the House of Delegates had not acted upon the contract.

Thus began the progressive drift of the CMS Board of Directors from the principles agreed upon, and its by-law requirements, to maintain cordial and effective liaison with the Connecticut State Medical Society, and its obligation agreed to, that it would keep its parent organization informed of its policies, practices and operation. It is very obvious, that the Board of Directors of CMS decided that they would no longer observe their agreements with the Connecticut State Medical Society. The child of the Society had reached adolescence and was expressing its independence of its parent. Scorn gave way to contempt; contempt to arrogance; and having built a multi-million dollar home office out of the proceeds of its non-profit operation, it no longer chose to speak to its parent a few blocks up Whitney Avenue.

In fact, it refused even to inform its individual Participating Physicians. In addition, in the introduction of a new contract, it refused to even inform its individual Participating Physicians of the details of the new contract.

In addition to ignoring the Connecticut State Medical Society, now, it had progressed a step further and did not even hold a referendum of individual physicians prior to announcing its so-called "Connecticut Contract" to the public.

To make the wound more painful, five physician members of the Connecticut Medical Service Board of Directors, serving as members of the Council of the State Medical Society and nominated by the Council to keep the Society informed on CMS policies, these men maintained complete silence on the new CMS offering. The Council of the State Medical Society, along with the physicians they represent, read in the newspapers and learned for the first time of the CMS' new activities. It was not the only occasion that the Council of the State Medical Society was to be embarrassed by the silence of its nominees on the CMS Board of Directors. The strong silent men of the CMS Board had carried out another proceeding in 1955, not letting the right hand know what the left hand was doing.

The Insurance Commissioner of the State of Connecticut early in November, 1957, received for approval a copy of the Connecticut Integrated Contract. Yet, when the House of Delegates met one month later in December of 1957, no reference whatever, no information at all, was presented to the delegates, even though the President of CMS and its Medical Director were present in the House. When questioned later at a Council Meeting, the Executive Secretary of the Society at that time revealed that, he, who also served as a Board Member on CMS, and the President of CMS, persuaded the Chairman of the Committee on Third Party Payments, who incidentally had a report ready for presentation, that it was not necessary that the Committee present its report to the House of Delegates. Just another means of withholding information from the policy making agency of the State Medical Society.

The President of CMS personally called by phone the Councillors of each County Association, requesting that a letter such as he outlined be written to the Insurance Commissioner. The Councillors were led to believe, that their letters were being used to assure the Commissioner that the doctors of the State supported the general philosophy of CMS. The Commissioner of Insurance was looking for some indication that the doctors of the State approved the new Connecticut Integrated Contract. Unknown to the Councillors, their letters were being misrepresented to the Commissioner as an endorsement of the Connecticut Integrated Contract. And having been in this manner misled by the President of CMS, the Commissioner approved the plan.

To his credit, the past Chairman of the Council was not deceived by this ruse.

Is it surprising, then, that County Societies learning of this jobbery, rose, bristling in protest throughout the State? What was CMS' answer to the protest? Did they follow the directive of their by-laws—the maintenance of cordial liaison between CMS and The Connecticut Medical Society? No—to their everlasting disgrace—CMS Board of Directors purchased several thousand dollars worth of advertising space in the newspapers throughout the State in an effort to discredit the doctors who opposed their chicanery.

I quote from an article published in the June, 1951, issue of the Connecticut State Medical Journal and written by the President of CMS: "The House of Delegates must always concern itself with CMS, as it is the policy making group of the Connecticut State Medical Society and therefore must decide from time to time whether or not the plan is fulfilling its obligations to the people and the physicians of Connecticut." During the same year, at a symposium on professional relations in Medical Care Insurance, he stated: "It is my opinion that if a medical care plan is a good one, forthright and honest in its dealings with the medical profession, and the medical profession in the area covered is well acquainted with it, that as far as 90% of the physicians are concerned, good professional relations will prevail." Let any fair-minded individual, acquainted with the facts I have presented, judge if the medical profession of the State Society has been dealt with forthrightly and honestly.

Still, the sad narrative does not close here. Shortly after the last House of Delegates Meeting ended, the Council of the State Medical Society tried anew to improve relationships between CMS and the Connecticut State Medical Society, and requested the Board of Directors of CMS to meet with the Council for that purpose on May 28, 1958. Two events of considerable importance occurred before the two groups met.

(1) CMS Board of Directors authorized a referendum, so-called, in connection with which it was stated that the Board was desirous of obtaining an expression of opinion of the doctors of the State regarding the proposed Connecticut Integrated Contract, and

(2) The Council of the State Medical Society learned for the first time, officially, that CMS had amended importantly in 1955 the by-laws which had been approved by the House of Delegates in 1948. Many of you may recall that in approving of the creation of CMS, the House of Delegates also was presented with and approved the by-laws. The Society discovered that the agreement on by-laws had been changed unilaterally by CMS without notification to the Society.

The Board of Directors of CMS, meeting on February 15, 1955, amended Paragraph 2, Article 1 of the by-laws. Until this date, the by-laws read: "Upon death or resignation of any member of the corporation, or upon receipt of written notice from the Connecticut State Medical Society to the effect that a member nominated by such body is no longer approved, a vacancy shall be deemed to exist and shall be filled upon nomination of the Council of the Connecticut State Medical Society if such vacancy is that of a physician member." The amendment deleted the phrase "or upon receipt of written notice from the Connecticut State Medical Society to the effect that a member nominated by such body is no longer approved."

The obvious result of this amendment is that the State Medical Society has no power, except in case of death or resignation, to appoint its representatives on the Board. Furthermore, the six physicians members of the Board had made themselves lifetime tenures on the Board, unless they voluntarily chose to resign before death. The change effectively removed any power of the Medical Society to approve or disapprove of the actions of its six physician representatives and the Board controls all policies, practices and operations of the corporation. The ability to have representatives of its own choosing has always been of utmost importance to the Connecticut State Medical Society.

I have a copy of the minutes of the Board of Directors of CMS meeting of February 15, 1955, and present and voting for this amendment were the following physicians: (1) Dr. Thomas Danaher; (2) Dr. Walter Russell; (3) Dr. Louis F. Middlebrook, Jr.; (4) Dr. Creighton Barker; (5) Dr. Henry Archambault. Four of these physicians were at that time also serving on the Council of the State Medical Society and a report of the Annual Meeting of CMS—1955 was presented at the next Council Meeting. These four men, neither at that time nor until the Council discovered the change itself, disclosed this most important by-law revision of CMS. One can only conclude, that the information was deliberately withheld because, in consulting the minute book of the Council covering that particular meeting, there are extended remarks concerning another CMS by-law change revising the composition of the Professional Policy Committee. Following the Council meeting, the Executive Secretary at that time forwarded a rather lengthy letter to the Board of CMS indicating the Council's approval of the change with respect to the Professional Policy Committee.

In the April, 1955, issue of the Connecticut State Journal, Page 331, under the caption "Blue Shield Reports," there is nearly a full-page report covering the activities taken at the February 15, 1955, CMS Board of Directors. There is a very obvious omission of any reference to the by-law change which effectively removed the power of the State Society to change its physician representation on the CMS Board.

Spokesmen for CMS have tried to explain inadequately this secretive action. It is stated, and a mailing room photostat record is presented, which indicated that CMS sent to each participating physician a copy of the amended by-laws. In answer, one readily notes that no letter of transmittal accompanied the mailing explaining in what manner the by-laws had been amended. Again, the CMS spokesman's answer completely ignores the complete membership of the Connecticut State Medical Society, the Council and the House of Delegates which sponsor CMS, and had been a partner in adopting the original by-laws of CMS.

It is also suggested that the Council must have been informed, because five members of the Board of CMS were serving on the Council at the time. In answer, study of the council proceedings show that these men maintained a compact of silence.

These facts having been ascertained, the Council passed a vote of no-confidence in the Society's reprsentation on the CMS Board of Directors. The Council requested the resignation of these representatives. One has refused to acknowledge to this date the request of the Council. Four have informed the Council of their refusal to resign. One indicates he has a disposition toward resigning. The Council requested these resignations for many reasons, some of which are obvious to anyone hearing this report. However, we had one additional reason, which was, that inasmuch as the Council had nominated these physicians, the Council was the proper body to replace them, rather than to ask the lay board members to carry out the unpleasant task. By their refusal to comply with the request of the Council, these six physicians have taken upon themselves absolute power to do as they see fit, regardless of their fellow physician members of the Connecticut State Medical Society.

The CMS Board was informed of this intolerable relationship and were further made aware by the Council, that until a by-law change restoring to the Society the original power

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...in Rheumatoid Arthritis: Impressive therapeutic effect in most cases of a group of 89 patients[4]... 6 mg. of ARISTOCORT corresponded in effect to 10 mg. of prednisone daily (in addition, gastric ulcer which developed during prednisone therapy in 2 cases disappeared during ARISTOCORT therapy).[5]

1. Rein, C. R., Fleischmajer, R., and Rosenthal, A. L.: J. A. M. A. *165*:1821, (Dec 7) 1957.
2. Shelley, W. B., and Pillsbury, D. M.: Personal Communication.
3. Sherwood, A., and Cooke, R. A.: Personal Communication.
4. Freyberg, R. H., Berntsen, C. A., and Hellman, L.: Paper presented at International Congress on Rheumatic Diseases, Toronto, June 25, 1957.
5. Hartung, E. F.: Personal Communication.
6. Schwartz, E.: Personal Communication.
7. Sherwood, A., and Cooke, R. A.: J. Allergy 28:97, 1957.
8. Hellman, L., Zumoff, B., Kretshmer, N., and Kramer, B.: Paper presented at Nephrosis Conference, Bethesda, Md., Oct. 26, 1957.
9. Ibid.: Personal Communication.
10. Barach, A. L.: Personal Communication.
11. Segal, M. S.: Personal Communication.
12. Cooke, R. A.: Personal Communication.
13. Dubois, E. L.: Personal Communication.

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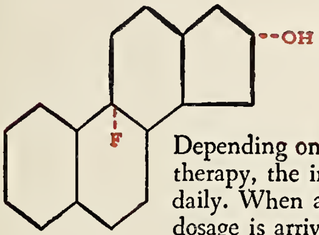

Depending on the acuteness and severity of the disease under therapy, the initial dosage of ARISTOCORT is usually from 8 to 20 mg. daily. When acute manifestations have subsided, maintenance dosage is arrived at gradually, usually by reducing the total daily dosage 2 mg. every 3 days until the smallest dosage has been reached which will suppress symptoms.

Comparative studies of patients changed to ARISTOCORT from prednisone indicate a dosage of ARISTOCORT lower by about ⅓ in rheumatoid arthritis, by ⅓ in allergic rhinitis and bronchial asthma, and by ⅓ to ½ in inflammatory and allergic skin diseases. With ARISTOCORT, no precautions are necessary in regard to dietary restriction of sodium or supplementation with potassium.

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of recall and replacement agreed upon from the beginning of CMS was restored, no other matters could be negotiated; as, for example, the resignation of three members of the Professional Policy Committee, who in protest against the manner in which CMS carried out its operation, submitted to CMS their resignations and notified the Council of their action.

The Council Subcommittee Meeting, with a similar Committee from the Board of CMS, has repeatedly stressed the importance of the power of recall and replacement to the Society. Yet, the greater portion of one meeting was consumed in discussing a CMS referendum, set up and written in such a fashion, that doctors were uncertain as to whether they were voting either to approve the Connecticut Integrated Contract, to participate in the Connecticut Integrated Contract, or both.

Seward and Monde, a local accounting firm, which finally received the results, carefully pointed out, that all matter sent out and received was under the control of CMS. CMS, after announcing it was going to conduct a poll of the physicians of the State, sent cards to doctors in Massachusetts, Rhode Island and other places. Some dentists and Osteopathic Physicians were also canvassed. In one hospital, all of whose members are also members of the Connecticut State Medical Society, 26 physicians on that staff received no card. Ninety physicians' votes were rejected because of lack of signature, no clear indication of vote and any written comment the physician might have written on the card. Of the 2,016 returns deemed acceptable, 1,142 physicians indicated they did not wish to participate in the Connecticut Integrated Contract. In spite of these results, the Council Subcommittee was asked to approve a letter CMS had prepared to send out, which included the statement: "We are naturally pleased that a majority of the returns were favorable." The subcommittee refused to be a party to such misrepresentation. The same letter included the statement: "We were impressed by the large number of non-participating physicians who indicated they were favorably disposed toward the Connecticut Contract."

Seward and Monde's tabulation shows 42 of 378 non-participating physicians responded in favor. After urgent pleading that such misrepresentation would only lead to further difficulties, the letter was not sent out by CMS.

The Council Subcommittee was led to believe, that at a joint meeting of the two subcommittees on June 16, a proposed remedy would be offered by CMS, providing a mechanism for the Society to exercise proper control over its medical representation on the CMS Board. As soon as the joint committee went into business sessions, the CMS representation was asked for the promised proposal. We were informed they were as yet not ready to present a proposal, but after one and one-half hours of discussion, CMS representatives granted that they agreed in principle, that the Connecticut State Medical Society should have more elastic power in selecting its representatives on the CMS Board. Again and again, it was brought forward that the problem at issue is of utmost importance and any unnecessary delay in settling would be detrimental to the public, CMS and the Connecticut State Medical Society.

Eventually, on June 30, 1958, a proposal was received; in brief, for I believe you all received copies of this here today, the proposal allowed for the periodic replacement of the present medical representation on the Board of CMS over the next two and one-half years, and provided for two additional physicians and two additional lay directors, the last appointments to be effective immediately. The proposal ignores completely the fact that we requested the original power agreed upon jointly in 1948, that we be able to recall and replace our representatives, and further ignored our expression of no-confidence in our representation as presently constituted.

The Chairman of the Board of CMS received immediate notification that the proposal was unacceptable to the Subcommittee of the Council, and that this committee would recommend rejection of the proposal by the full Council, in that, the basic issue of recall and replacement had been ignored. An answer was requested from CMS on or before July 8, 1958, at which time the Council had called a meeting. Just prior to the Council Meeting, the Chairman of the Council received notification that CMS flatly refused the by-law provision for recall and replacement. Included in the letter is a statement characterizing the State Medical Society or its Council, or both, as being "a body that cannot share its full range of public responsibility."

One can only wish now, that the CMS Board of Directors' sense of public responsibility was as sensitive at the time it submitted for approval to the Insurance Commissioner a new contract containing changes not presented previously, as required by its by-laws, to the doctors of the State and their policy making bodies; compounding the irregularity by having it represented to the Insurance Commissioner, that the doctors had approved the proposal; breaking agreements mutually agreed upon hy by-laws; ignoring the words of its own medical director, who, in speaking to a National Blue Shield Conference at Ann Arbor, Michigan, on July 24, 1954, said: "As long as physicians are willing to render service benefits, they must be in a position to determine fee schedules and the professional policies under which their services are provided."

Your Council has proceeded honestly and sincerely to seek a settlement of this controversy. The Council does not feel it is in any position to compromise clear-cut by-laws agreements openly arrived at by action of the House of Delegates and CMS in the mutual compacts entered into in 1948. If the Council were to act otherwise, it could justly be charged with wilful failure of its duties.

On July 8, 1958, the Council, having reached an impasse in its negotiations with CMS, passed the following resolutions:

(1) Council rejects the proposal of June 30 and July 8, 1958, submitted by CMS Board of Directors; further, that the Council engages in no further negotiations with the Board of CMS, and that the members of the State Medical Society be informed of the failure of the Board to comply with the reasonable and proper requests of the Council. This vote was approved—this vote was passed by the Council—by a vote of 16 to 1.

(2) That the Chairman of the Council appoint a Committee of five members of the Council to study various plans and report back to the Council with a recommendation as to the type of plan for prepayment of Physician's Services which can best be operated and controlled by the Society. The vote on this resolution was unanimous.

(3) That the Council of the Connecticut State Medical Society call a special meeting of the House of Delegates to convene, Tuesday, July 22, to consider the following items of special business:

(a) To withdraw the sponsorship of the Society from Connecticut Medical Services, Incorporated, and

(b) To receive and act upon the report of the Special Subcommittee of the Council with respect to the organization, incorporation, operation and control by the Connecticut State Medical Society of a plan designed to provide prepayment for Physician's Services, approved without dissenting vote.

In closing, I would like to quote from a speech reported in the June 21, 1958, issue of the Journal of the American Medical Association, and presented at the May meeting, 1958, of the National Blue Shield Conference by Dr. Louis H. Bauer, Chairman of the United Medical Service, Incorporated, of New York, and past President of the American Medical Association:

"Some of our plans are no longer doctors' plans except in name. Not all of this is Blue Shield's fault, but often it is the fault of the Medical Society in letting control of the plan slip out of its hands. The fact remains, however, that whatever the reason, it is the duty of the Board of Trustees to see to it that this control is strengthened, or, where necessary, returned to where it belongs—in the hands of the profession. The key to the correct balance of Blue Shield strength lies in the relationship of the Board to the Medical Societies it represents.

The Medical Societies should have the right to nominate the Medical Members of the Blue Shield Board. But no physician trustee should be elected unless he has been nominated or approved by the Medical Society of which he is a member.

Plan trustees must see to it that no major change in policy is approved by the Board, unless the change first meet with the approval of the Medical Societies. This applies to such plan policies as the extent of coverage offered, service level benefits, fee schedules, and so forth."

It was my intent to close my report at this point. However, during the past 36 or 48 hours, there have been certain developments. There have been offers made by neutral parties outside the two parties to this controversy to offer to mediate the situation. A Subcommittee of the Council met and things have been happening so rapidly, that it's rather difficult to keep up with events.

But it would be offered in amendment to one of the resolutions, that an effort be made, which has been suggested, that National Blue Shield come in and investigate this situation and make recommendations. I don't think there is anyone here that is happy about this controversy. Your Council has had very busy days since your April meeting. I think it would be quite proper for this body to consider and act upon the offer of National Blue Shield.

I think it quite proper that we express our appreciation to the Governor of the State of Connecticut for his offer to mediate this controversy. Thank you.

(Applause)

Dr. Scully: Gentlemen, you've heard the report of Dr. Feeney. What is your pleasure?

Voice: Move we adopt with thanks.

Dr. Scully: May I state here, that each one that speaks from the floor, any Delegates, please identify himself for the recording secretary, so that we can have everything down.

Dr. Bradley: South Norwalk. I move the report be adopted and approved.

Dr. Mills: Fairfield. I'll second that.

Dr. Scully: Any question? Any discussion? Are you ready for the question? All those in favor? All those opposed? So moved.

At this time, I would like to turn the meeting back to the Speaker of the House, Dr. Feeney.

Dr. Feeney: It seems I'm wearing two hats here today.

I'm glad to tell you, they fit very comfortably.

Now, as I suggested in my report, you have two motions to consider. And I indicated there are amendments to be made from the floor in regard to the sponsorship item of the motion, number one. Our by-laws indicate that any recommendations, and so forth, of this character, go to a reference committee.

I suggest to you the motion, that you now resolve into a Committee of the Whole and the House of Delegates act as a Reference Committee. And when you have thoroughly discussed your propositions that are up for discussion today, that you then rise and report. And then, you may take the action you wish.

. . . The motion was seconded . . .

Dr. Feeney: The motion has been made and seconded. Dr. Gallivan, do you wish to come forward?

Dr. Gallivan: Mr. Speaker, I rise to offer some motions to this body, which motions are offered in behalf of the Subcommittee to which Dr. Feeney referred, and which has been sometimes called "The Negotiating Committee." This committee was set up two months ago yesterday, and is the committee which has been in negotiation with a similar committee from CMS.

I offer, Mr. Speaker, the following motions: It is moved

(1) That the Chairman of the Council be directed to request the National Blue Shield organization immediately to investigate the current controversy between the Connecticut State Medical Society and Connecticut Medical Service, Incorporated, for the purpose of assisting in resolving the differences of opinion which exist between these organizations. And it is further moved

(2) Connecticut Medical Service, Incorporated restore to the Connecticut Medical Society—State Medical Society—the right of recall of its members of the Connecticut Medical Service Board of Directors, in consonance with the intent of the Connecticut Medical Service By-laws, Article 1, Paragraph 2, as the paragraph read prior to 1955, namely:

"Upon death or resignation of any member of the corporation, or upon receipt of written notice to the corporation from the Connecticut State Medical Society to the effect that a member nominated by such body is no longer approved, a vacancy shall be deemed to exist, and shall be filled, but upon nomination of the Council of the Connecticut State Medical Society, if such vacancy is that of a physician member; or nomination by the corporation, if such vacancy is of a lay member." And it is further moved,

(3) that on or before September 1, 1958, the Connecticut Medical Service, Incorporated, submit to the Chairman of the Connecticut State Medical Society a certified copy of the Connecticut Medical Service, Incorporated, records of such restoration. And it is further moved,

(4) That if the above actions are not carried to completion by September 1, 1958, the sponsorship by the Connecticut State Medical Society of the Connecticut Medical Service automatically be withdrawn effective September 1, 1958. And it is further moved

(5) Withdrawal of sponsorship be considered to mean any term or word which implies sponsorship.

(Applause.)

Dr. Feeney: Does anyone wish to second the amendment?

. . . The amendment was seconded . . .

Dr. Feeney: Discussion? Dr. Richards, please?

Dr. Richards: Mr. Speaker, Members of the House of Delegates,

I should like to speak in favor of this motion. Not only the termination implying that we will withdraw sponsorship, but all the other factors which Dr. Gallivan has therein included.

This House of Delegates is being asked to make several extremely difficult decisions. It is being asked to, in a sense, approve or disapprove the actions and recommendations of the Council. Selfishly, perhaps, most of the Council members hope for your vote of confidence. But this is only of passing importance.

Probably, most of you feel that the really big issue before you is whether to withdraw sponsorship from CMS or to continue. I most certainly share the reluctance of every Delegate in this room to finally and completely dissociate these two organizations. At least 23 of your Council Members are Participating Physicians and have been equally reluctant to take this step.

But I say to you in all sincerity, that the twelve and a half words which comprise this motion present only a single action which you must vote to take or not, according to your conviction.

To withdraw sponsorship or not, that is the question, or so it seems. But it is my conviction, that there are certain vital principles interwoven with the words of this motion, and I should like to present them for your consideration.

By voting to support this motion:

(1) I will thereby publicly refute the contention of individuals on the CMS Board that the Connecticut State Medical Society does not today represent me and my fellow members. This contention is false and I so label it.

(2) I will refute a similar contention by these same people that the duly elected Council of this Society should not have the confidence of the Society. I brand this insinuation untrue, in fact, not in spite of my membership in the Council, but because of it.

(3) I will make it clear to all fair-minded people who may hear of my actions that I, as a practicing physician, actively participating in its contracts, have no confidence in the present medical directorship of Connecticut Medical Service, Incorporated, and that I do not desire its members to remain in office or to continue to deceive the public by claiming to be the only true representatives of the doctors of this state when nothing could be further from the truth.

(4) My vote to support this motion will express my belief

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that in 1955, the necessity for the CMS Board to quietly alter the by-laws so as to guarantee themselves lifetime tenure of office stemmed from a feeling of insecurity rather than of confidence, that they represented the thinking of this Society even at that time.

(5) By so voting, I will go on record as endorsing the agency known as Connecticut Medical Service, Incorporated as one entirely satisfactory to again sell my services, if and when a proper directorship acknowledges the fact that it is not in the public interest or in its own interest to deny physicians the right to determine who shall formulate medical policy for such an agency. I detest coercion in any form. I have always gladly volunteered my services for small payment or for no payment to those of my patients who cherish independence and freedom of choice, but have limited income. I will vigorously resist every effort to force me to do so and I believe all Americans will be sympathetic to my cause.

I can only hope most of you—I wish that all of you—will share my conviction that there can be no compromise on such matters of basic principle. I believe no delegate here can in good conscience fail to say that is true. Of even greater importance is that he knows it to be true. It is my firm belief, that my vote in favor of this motion is proper and necessary, because while I agree wholeheartedly with the principles of Blue Shield plans, I must denounce the principles held by the present medical directorship of CMS, whom I cannot replace and who will not resign. I must put the charge of failure to recognize responsibility to the public where it belongs—squarely on the shoulders of these six men. Thank you.

Dr. Feeney: Any further discussion?

Voice: What do we discuss, the amendment or motion, Mr. Speaker?

Dr. Feeney: The amendment at present. This includes the motion. There are amendments. Dr. Root?

Dr. Root: I am Dr. James H. Root, Waterbury, Connecticut. I want to discuss this recall.

Obviously, we have been had in many respects, and I certainly can see that we would want either a recall or a modified recall, or a similar sort of a thing.

I think, from the point of view of the CMS, that since we obviously don't trust them, that they may not trust us. And that if we give the right of recall—get that back right the way it was before—we might possibly recall everybody right away and appoint all new members, which, I think, they are afraid of that, because they are afraid it would gum up all the works.

I'm not sure that we have to do it that quickly, and I think that we should assure them that it will be done in an expeditious manner, this matter of recall. I think that should be put in writing, because I don't think that what we would say without putting it in writing could mean much more to

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1. Thomas, J. W.: Ann. Allergy 16:128, 1958

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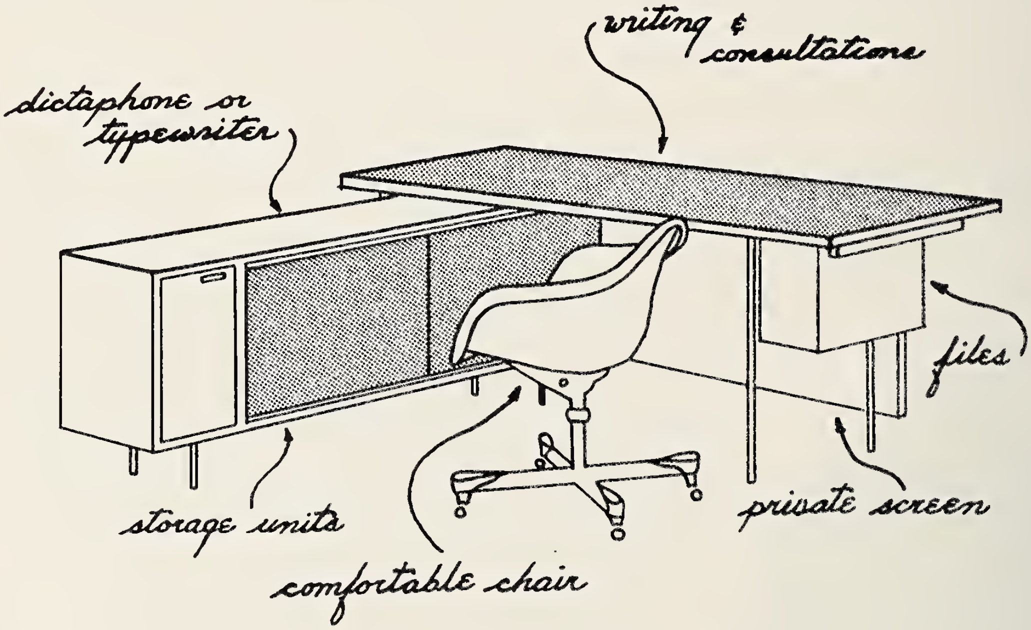

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them than what they would say would mean to us if they don't put it in writing at that point.

I have one countersuggestion, which, of course, I can't make it as a motion right now, because there are other motions and amendments on the floor, but I would like to present it in a way in which we could possibly consider it later. And this is the compromise that I would like to have you consider.

(1) In line with what they said about the two additional physician members, that two additional physician members be appointed by the Council to the Board of Directors of CMS.

(2) That each physician member hold office for two years and may be reappointed by the Council if the Council so desires.

(3) That the term of office of two of the present members end at once, and that these two may be replaced now by the Council at the same time that the two additional members are appointed.

(4) Also, that the term of office of the other two—of the other four physician members of the Board of Directors of the CMS—be terminated one year from now, and be replaced if desired by the Council. In other words, the Council or the Board of Delegates, if you would rather, would appoint four out of the eight physician members each year.

Dr. Davis: Point of order, Mr. Speaker.

Dr. Feeney: What is your point of order, Dr. Davis?

Dr. Davis: I'm of the opinion that Dr. Root's well-meant suggestions are out of order at this time, because they relate to matters of negotiation, and we're considering a motion and amendment which have to do with the establishment of a basis for negotiation.

Dr. Feeney: Let me explain that point. We are a Committee of the Whole. It's actually in a Committee of the Whole you do not pass any resolutions. After you have thoroughly discussed proposals presented during a meeting of the Committee of the Whole, having agreed that you whip them into shape, then you make a motion—or someone makes a motion—that you rise and report. And when things are arranged according to the will of the body, the motions are then made and acted upon.

So, this is during the Committee of the Whole. This is just as if you were having an open discussion, Doctor.

Dr. Blodinger: Mr. Speaker?

Dr. Feeney: Dr. Blodinger?

Dr. Blodinger: As a member of the Subcommittee which has been patiently and wearily attempting to negotiate with CMS, we have negotiated—no, I won't say "negotiate"—we have actually been meeting as late as five minutes before this meeting started. And a portion of this Subcommittee met Sunday with the Executive Director of the National Blue Shield Plans. A couple of the members of the Subcommittee, for various reasons, could not be present. We outlined all the difficulties; we gave them a clear picture. We were together, I should say, from three to four hours. He outlined to us certain basic principles on which the National Blue Shield Commission—as it's known by other names—also operates. And one of the basic requirements for recognition of a Blue Shield Plan—and I don't recall the exact words—but it does imply that

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(1) It must be sponsored by a State Society or a component of the State Society; and

(2) This Society must have some sort of control in the operation of this plan. By control, he stated—and I verified this fact—in many of these plans, there is actually a majority of physicians nominated and elected by the Society involved. In one or two, there is a majority of laymen—Board of Directors. However, these laymen-Board of Directors are actually appointed by the State Society which is the sponsoring body.

In the UMS Plan in New York, the by-laws specifically state, that of 24 directors, no less than 13 can be physicians; and the laymen on the Board of Directors are also named and elected by the Society.

We, in this state, have a very peculiar position. We have a Blue Shield Plan which advertises that it's the "Doctor's Plan" that is sponsored by the State Society. We actually have no voice in the operation of the Blue Shield Plan legally, at this point, or at this moment, than you have in the operation of the A. T. & T., unless you happened to be a Director.

The Executive Secretary agreed with us in our contentions, that this State Society, if it is to remain a sponsor, must have a definite voice in the operation of this plan. We on the Subcommittee are agreeable to any suggestion, but we feel this basic principle of recall, which was originally agreed to and ratified by this very House of Delegates, must be restored as a basis for any negotiations. In fact, this business of specific tenure of office for the directors should apply not only to the members of the Board who are physicians, but also the lay members. This was agreed to by the Executive Secretary of the Blue Shield plan. We agreed to that. But those are things that we can decide in negotiations later. But should or could we get this basic right restored to us, which, to put it boldly, "was stolen from us," then we could sit down and we could talk as reasonable and agreeable people. And whatever mediating body could possibly do it for us, that's perfectly good; whether it's the Governor, or even Ike Eisenhower, we don't care. But we feel we must have this. Then we can sit down and as reasonable people decide what's best for the public, for the State Society and for all of us. I thank you.

Dr. Freiheit: Mr. Speaker?

Dr. Feeney: Dr. Freiheit?

Dr. Freiheit: I do think it's important whether the Governor or Eisenhower or some National Blue Shield negotiate this thing, because we want to keep it out of the hands of the politicians like we kept socialized medicine out of the hands of the politicians.

There are some points here I'd like to have recorded in the record. The principles set forth in the membership of Blue Shield Plans by this National Blue Shield organization are, I think, pertinent to this contest. It says, "The plans shall have approval of the State or County Medical Society." These are rules and regulations adopted by the conference, the conference of the National Blue Shield Plans. "The plans shall have the approval of the State or County Medical Society. And if the approving Medical Society withdraws its approval, such withdrawal shall place the plans membership on a conditional basis, subject to termination, pending inquiry into these circumstances.

This is a rule that's already been laid down by the Blue Shield Plan. So, it's immaterial whether you remove the sponsorship now or on September 1st. That plan, its organization, is on a conditional basis until these negotiations are finished.

The other principles set forth are principles that I will not read now, because I don't think they are pertinent. But there is one here, especially, which knocks this "Equivalent Payment" thing into a cocked hat.

Benefits may be provided under an indemnity or service basis. Indemnities that are paid to subscribers shall be clearly stated. If it's on an indemnity basis, it must be clearly stated that it's only an aid in paying the bill, the full bill, and does not mean there that the insurance company has any right to put a statement on saying, "If you are going to a CMS doctor, this would be the whole bill." This does not necessarily cover the entire cost, as I said before, but is a part payment on account, only an aid to paying the full bill.

Dr. Feeney: Dr. Brown?

Dr. Brown: Waterbury. I am asking for a point of information.

If I'm not mistaken, one of the amendments was that the National Blue Shield be called in to help to solve or resolve or advise upon this controversy. Now, then, we have certain other following motions made, that we retire until we get an answer by September 1st. Then the National Blue Shield advises, or whoever you are going to have in consultation or meet with the CMS and the Connecticut Medical Society. Are we waiting for his decision, or their decision, or are we going ahead anyway. I was not quite clear on that.

Dr. Feeney: I think the intent of the suggested motion is that we would await the results of the assistance in resolving the difference of opinion which exists between the organizations today.

Dr. Brown: Therefore, Mr. Speaker, if that is so—

Dr. Feeney: I would just as soon have the individual that presented it interpret it.

Dr. Brown: May I ask if that is so? Are we proper in now laying down certain fundamental requirements that be met by September 1st, or should we not wait until we can see what advice, what arrangements can be made, after consultation with the National Blue Shield?

Dr. Feeney: I can answer your question, Doctor. Council has been advised, that if National Blue Shield comes in here, they could have presentation pretty well completed in two or three weeks.

Dr. Blodinger further elaborates, that the Executive Director of the Blue Shield Plan agreed practically with the form of the amendment which you heard presented. In fact, he thought he could get this thing into the works and out within two weeks. We then gave him three weeks, and we're now adding a fourth week. He felt that he would agree to call in various individuals that are at our suggestion. We even named some individuals who would be called in nationally, prominent men in the Blue Shield organization, and he agreed that this method of doing it, of a deadline, with withdrawal of sponsorship at that time, was perfectly agreeable to him, and it was on that basis that the Subcommittee brought up this report which Dr. Gallivan stated.

Dr. Levin: I want to ask a point of information of the Chairman of the Council, or from the Speaker of the House.

Something was said, that recently—as early as this afternoon—there was a meeting. Has that meeting, the group meeting, taken into consideration this pamphlet which I received in the mail, which is called the "CMS Physician's Bulletin"? I know a lot of men have not received this pamphlet, or, if they have neglected to open their mail and read this.

We are speaking of sponsorship. And this is issued by CMS, and is called the "CMS Physician's Bulletin." And those who have read it are acquainted with it. And I'm going to say to you, that they point out several facts here. And fact Number Three reads as follows:

"Actually, there never has been any sponsorship of CMS by the Society. The physicians approved an outline of a program that they believed would provide a prepayment plan and make possible a relationship which CMS has always treasured.

CMS has been proud of its relations with the physician group. It has constantly boasted of this relationship. CMS often referred to it as a sponsorship, even though there was no legal basis for use of that term. It took particular pride in referring to its relationship with the Society on all its printed materials."

How, in the face of that, Mr. Speaker, can you include this measure of sponsorship, this matter of sponsorship, when these people deny that there was sponsorship.

Dr. Feeney: I believe I interrupted my prepared remarks to explain Webster's definition of "sponsorship." Webster's definition of "sponsorship" is that, "one who binds himself to another in case of default." And I pointed out two situations in which the doctors bound themselves and this Society bound themselves to the extent of $5,000 non-interest bearing loan. So, I think in order with Webster's Dictionary, we are a sponsor. Dr. Ottenheimer.

Dr. Ottenheimer: Mr. Speaker, I am rising to say, that I am in favor of Dr. Gallivan's motions so far as mediating this thing is concerned. I think the situation has reached a point where we need calm and a dispassionate survey of the many problems that have arisen between CMS and the Connecticut State Medical Society. And I think perhaps the National Blue Shield might be the ideal one to do it.

Now, I came here because at a meeting of the Executive Committee of the Windham County Medical Society two or three days ago, we had to decide what action the County was going to take on the resolution which was in the call of this meeting, which had to do with withdrawing of sponsorship, from CMS, of the State Society. And the Windham County Medical Society wanted to go on record as being unanimously opposed to that resolution. And the reason it was opposing it was, that it felt that the matter still could be mediated by calm, reasonable people, and that's what the thing needed.

And I agree with Dr. Brown of Waterbury, that I think it might be unwise to pass a resolution demanding this recall, even though we may want it. If we're going to ask the Blue Shield to mediate it—and we've already been led to believe that the National Blue Shield Commission believes in that principle—but I think it would be unwise to say that we're going to pass this resolution now, and if nothing happens by September 1, then we automatically withdraw it, and then invite an impartial group to make the survey. I think we prejudice the situation immediately. It would be much to our advantage, I think, if the Blue Shield Commission made that recommendation as a result of their survey, and then the Society could act on it.

Dr. Gallivan: Mr. Speaker, in support of the second part of the motion which we gave to you, would you call to Dr. Ottenheimer's attention and the others who feel that this is an out and out demand, that exactly the same wording go back to my perhaps poor but at least considered choice of words? It goes as follows:

"That CMS, Incorporated restore to the Connecticut State Medical Society the right of recall of members of the CMS Board of Directors in consonance with the intent of CMS By-laws, Article 1, Paragraph 2."

If I may go on to defend that, Mr. Speaker, and to support it?

I know of no means by which the State Medical Society can consider itself a part of the managing directorate of CMS, unless it has the right to name men representative of it. But I was very careful to say, that we do not insist necessarily on exactly the same wording. There is room here for negotiation. It is my considered opinion, Mr. Speaker, however, that if there are no recall provisions put in, this House will find difficulty in approving of any plan.

Dr. Feeney: Dr. Davis?

Dr. Davis: May I speak briefly in support of the motion as amended?

Dr. Feeney: We're discussing the possible motion.

Dr. Davis: May I discuss it in support?

Dr. Feeney: You may.

Dr. Davis: I believe there is an area here wherein confusion could arise, with respect to the difference between conducting negotiations on the one hand, and the business of establishing a basis for negotiation on the other hand.

As this situation exists at this moment, we have no possible basis upon which we can conduct any negotiations with the Directors of the Connecticut Medical Service, for the simple reason, it is impossible for the victim of a robbery to engage in negotiations with the robber, as long as the robber still holds the gun. It becomes necessary for us to have equality of standing in order to engage in the negotiations. In order for us to have equality of standing, we must have a right restored to us, the right to have six medical directors on that Board, who represent the Connecticut State Medical Society. If we cannot achieve this, we can never negotiate with these people and we must part company.

If, however, prior to September 1st, these people will restore to the Society the right to name six men on the Board who will represent it, we are then in a position to negotiate and will be most happy to negotiate all matters of mutual interest. Thank you.

Dr. Feeney: Just let me clarify something else. Under the procedure which we're operating, as a Committee of the Whole, it is possible to amend and adopt on such a report. Then, at the end, when everything has been agreed upon, so there will be no further delay, after the Committee rises and reports, then I will recognize the person who initiated the motions in the Committee as a Whole, and have the House act on those motions. Dr. Conroy?

Dr. Conroy: Following in line with Dr. Ottenheimer, I want to give you the vote taken a day or two ago by the Meriden Medical Society. They wanted me to bring this to the attention of the House of Delegates.

Dr. Fox of Meriden moved that the Meriden Medical Society recommend to its representatives of the State Society, that they vote against the move to withdraw sponsorship from the Connecticut Medical Service. This motion was seconded. Dr. Robb then pointed out that a motion such as this constitutes a blanket endorsement of CMS, and as such, does not reflect our intentions. Dr. Burbank proposed an amendment which was accepted by Dr. Fox.

This amendment requests that the differences between Connecticut Medical Service and the Connecticut State Medical Society be settled by negotiation or arbitration, and that the Meriden Medical Society requests the resignation of Drs. Barker and Danaher from CMS.

This motion was seconded and passed.

Dr. Grendon: Mr. Speaker, I should like to read a resolution which was passed by the Litchfield County Medical Association on July 16, 1958:

Whereas the Connecticut Medical Service was in creation by the Connecticut Medical Society through whose sponsorship it has been enabled to function;

Whereas the Connecticut Medical Service has through past action and current recalcitrance and duplicity manifested a contempt for and disregard of Connecticut Physicians and their duly elected representatives;

Therefore, Be It Resolved, that Litchfield County Medical Society express its disapproval of the short-sighted actions of the Connecticut Medical Service, and instruct its delegates to the Special Meeting of the House of Delegates of the Connecticut State Medical Society on July 22, 1958, to voice this disapproval and to support the action of the Council of the Connecticut State Medical Society in withdrawing sponsorship of the Connecticut Medical Service by the Connecticut State Medical Society.

(Applause.)

Dr. Feeney: Any further discussion? Are you ready to rise and report? Dr. Gilman?

Dr. Gilman: Is this one motion of Dr. Gallivan's or is it a series to be voted on individually?

Dr. Feeney: There is no motion as yet. The motion he read has four paragraphs, and I think they would have to be acted upon individually.

Will those in favor, rise and report, please, indicating by saying "Aye." Opposed? Dr. Gallivan, will you now present your motion?

Dr. Gallivan: Mr. Speaker, I move that the Chairman of the Council be directed to request the National Blue Shield Organization immediately to investigate the current controversy between the Connecticut State Medical Society and Connecticut Medical Service, Incorporated, for the purpose of assisting in resolving the differences of opinion which exists between these organizations.

. . . The motion was seconded . . .

Dr. Feeney: Those in favor? Opposed? None. Unanimous vote.

Dr. Gallivan: Mr. Speaker, I move that the Connecticut Medical Service, Incorporated, restore to the Connecticut State Medical Society the right of recall of members of the CMS Board of Directors, in consonance with the intent of the CMS By-laws, Article 1, Paragraph 2, as this paragraph read prior to 1955. Do you wish me to read the paragraph?

Dr. Feeney: Does the House require the reading of this? Please indicate by raising your hand, those who would wish to have it read? Those who do not wish to have it read? I think it doesn't have to be read.

Dr. Gallivan: My motion, then, sir, ends with the sentence

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. . . "as this paragraph read prior to 1955."

. . . The motion was seconded . . .

Dr. Feeney: The motion being seconded, any discussion? Dr. Ottenheimer?

Dr. Ottenheimer: Does this mean that we notify the Blue Shield Commission that we'll have no survey unless CMS agrees to that principle?

Dr. Blodinger: The Executive Secretary or Director, I should say, of Blue Shield, has as recently as Sunday afternoon agreed that they would—if we called them on this basis as here outlined—they would be glad to come in and immediately try to mediate this issue. We told them the basic principles under which we were working. In essence, we had drawn up a resolution much stronger than that, and he agreed to that on that basis, to come in and get various Directors of Blue Shield to come in and negotiate.

Dr. Ottenheimer: Mr. President, I still think it is wrong to set up this principle before the survey is conducted. I think it would come about better and be in better taste, if the Blue Shield recommends it to the eyes of the public, and it would put the Connecticut State Medical Society in much better light.

Dr. Feeney: Let's have order, please. Any further discussion? Dr. Robb?

Dr. Robb: Evidently, there has been an impasse already reached with CMS with regard to this particular principle. Now, is it possible that if this again is unacceptable to CMS, as it well may be, that you are mediating with a group who comes from the outside as an objective observer to try to straighten this out, who has only a unilateral mediation?

Dr. Brown: I agree with Dr. Ottenheimer. We have the words down. It's going to be difficult to present to the public a verbal report from the Executive Director—whatever you want to call him—of the National Blue Shield—of what he spoke to representatives of the Council—of the Negotiating Committee—of the Connecticut Medical Society, without having such a report in writing, or without having such an official report from that organization.

I feel if we could get that very shortly in writing from the National Blue Shield and then have them come in, then I would feel much more inclined to go along with this motion.

Dr. Davis: Mr. Speaker, am I correct in my belief that the first paragraph which this House has just passed, specifically brings about this action; namely, the calling of the National Blue Shield Plan to investigate? If I am correct in that belief, then I fail to see what this discussion is about at the moment.

(Applause.)

Dr. Feeney: Are you ready for the question? Those in favor—do you wish it to be read?

Voices: Yes.

Dr. Feeney: This has to do with the restoration upon death or resignation of any member of the corporation upon receipt of written notice to the corporation of the Connecticut State Medical Society, to the effect that, when the member nominated by such body is no longer approved, that a vacancy shall be deemed to exist and shall be filled upon nomination of the Council of the State Medical Society. Such vacancy as that a physician member or nomination by the corporation of such vacancy as a lay member—

Voices: That's not the motion.

Dr. Feeney: I'm having trouble finding my place on the sheet here. I have it.

(2) CMS, Incorporated, restore to the Connecticut State Medical Society the right of recall of members of the Connecticut Medical Service Board of Directors in consonance with the intent of the CMS By-laws, Article 1, Paragraph 2, as this paragraph read prior to 1955.

Voice: Move the question.

Dr. Feeney: Those in favor? Opposed? The motion is carried. Dr. Gallivan?

Dr. Gallivan: Mr. Speaker, I move, that on or before September 1, 1958, Connecticut Medical Service, Incorporated, submit to the Chairman of the Council of the Connecticut Medical Society a certified copy of the Connecticut Medical Service, Incorporated, records of restoration called for in the immediately preceding action of this House.

. . . The motion was seconded . . .

Dr. Feeney: Is there any discussion? Those in favor? Opposed? So voted and so carried. Dr. Gallivan?

Dr. Gallivan: Mr. Speaker?

Dr. Feeney: Dr. Gallivan?

Dr. Gallivan: If the three immediately preceding actions of this House are not carried to completion by September 1, 1958, I move that the sponsorship by the Connecticut State Medical Society of the Connecticut Medical Service automatically be withdrawn, effective September 1, 1958.

. . . The motion was seconded . . .

Dr. Feeney: Is there any discussion? Those in favor? Those opposed? So voted and so carried.

Dr. Gallivan: Mr. Speaker?

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Dr. Feeney: Dr. Gallivan?

Dr. Gallivan: I move that it is the sense of this house, that withdrawal of sponsorship be considered to mean any term or word which implies sponsorship.

Dr. Feeney: Anybody second that?

. . . The motion was seconded . . .

Dr. Feeney: Any discussion? Dr. Rentsch?

Dr. Rentsch: I am disturbed by these "no's" and yet nobody discusses this. If you people don't agree with this gentleman, please get up and tell us why you don't agree. We think we're doing what we ought to do here. Now, there are a lot of people dividing and saying "No." Get up and tell us why you think "No" is the answer, before we vote.

(Applause.)

Dr. Feeney: Do you wish to discuss the motion?

Dr. Conroy: I voted no on this particular motion.

Dr. Feeney: The discussion is on the sponsorship to mean any term or word which implies sponsorship. If it is the will of the house to hear someone explain their vote, we will be glad to have them do it.

Dr. Gallivan: I move the privilege of the floor for him.

. . . The motion was seconded . . .

Dr. Feeney: Dr. Conroy? Is that the will of the house?

Voices: Yes.

Dr. Conroy: I agree with Dr. Ottenheimer, that—and also with Dr. Brown—that you have asked Blue Shield to come in and make suggestions after we introduce our problem, and then you start solving the problem by voting that CMS shall have to restore this privilege that was taken away. I think you are climbing right up a tree. What do you want us for? Why do you want us to help you out, when you are making decisions yourselves already that ties up the knot.

Dr. Backhus: Waterbury. I would like to say, that we have sympathy with what Dr. Conroy has just said, but don't forget, these are basic principles without which there can be no negotiations. And that's why at this time, it is my impression that we are putting these things in writing, as a means of entering into favorable negotiations with the CMS people.

(Applause.)

Dr. Katz: May I have the privilege of continuation of the remarks just made? In my opinion, then, that being the case, I think what we've done or what we should have done, is have the resolution be two resolutions number one and number two; that unless Resolution 2 were given to us, that we wouldn't go ahead with the other resolutions.

Dr. Gallivan: May I continue the remarks, Mr. Speaker? As a member of the Negotiating Committee—or Subcommittee—who has spent a couple of months on this problem, I can assure you, that the representatives of the Connecticut Medical Service are not at all convinced that the Subcommittee or the Council represent the members of the State Medical Society at large. The purpose of putting in number one as number one, is because I personally definitely feel we should have a group from the National Blue Shield come in to assist us, not only on this, but to facilitate the many points that may arise after this initial hurdle is gotten over.

I'm not even prepared to say that there will be unanimity of opinion on the Council on all of the points which will arise hereafter. I'm saying, necessarily, that there will be disunity. I do feel that on this particular point, we have vied valiantly to get across the fact that there is no difference of opinion in the Council at the moment, and we believe very little difference of opinion in the State Society, on the need

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to be able to have men on the Board of Directors of CMS who are truly representative of the Connecticut State Medical Society—1958.

Therefore, Dr. Katz, in presenting it to you, that is the reason that this one was put afterwards. It is indeed an effort to determine whether or not this House agrees with this particular principle. And it is my own personal interpretation from the vote, that by and large, they do agree with the principle.

The only objections I've heard have been, that perhaps we shouldn't put it in at this time, and not until the Negotiating Committee has come. But that you approve of the principle, I feel certain, or reasonably certain. Thank you, Mr. Speaker.

Dr. Brown: Mr. Speaker, may I ask Dr. Gallivan a question? And this is the question.

Dr. Feeney: Dr. Gallivan, he's asking you a question.

Dr. Brown: This is the question. You just said that the CMS Board of Directors from your attitude seem to feel that the Negotiating Committee and the Council do not represent the State Medical Society, or the members of the State Medical Society. Have you any reason to believe that the CMS believes that the House of Delegates represents the State Medical Society and its membership?

Dr. Gallivan: Mr. Speaker, may I answer the question?

Dr. Feeney: You may.

Dr. Gallivan: No.

Dr. Bradley: Mr. Speaker, I'd just like to make a point. That since this controversy arose, there have been elections in this State in the various Counties. So that, one-half of the Delegates of the House of Delegates, as it now stands, or sits, have been elected after the controversy arose. Therefore, I would believe that perhaps 50 per cent, at least, of the Delegates here were true representatives of the members of the Connecticut State Medical Society.

Voice: Question.

Dr. Feeney: Question has been called for. You are voting on withdrawal of sponsorship.

Voices: No.

Dr. Feeney: Withdrawal of sponsorship to be considered to mean any term or word which implies sponsorship. Those in favor? Opposed? So voted and so carried.

There was one other action which is not in the call of the meeting. It might be a little unparliamentary to introduce. But I do think this House should take cognizance of the offer of the Governor of this State and tell him, by writing, that, of the solution which we seek to solve this controversy. In other words, that we have agreed to have National Blue Shield send a group in here to try and investigate and find the solution to our problem. I so move.

. . . The motion was seconded . . .

Dr. Feeney: Those in favor? Opposed? The vote is so carried. Any other business?

Voice: Report of the Subcommittee.

Dr. Feeney: Oh, yes. We have a report of the Subcommittee. Dr. Weise, please?

Dr. Weise: Mr. Speaker, Members of the House of Delegates,

The Subcommittee, appointed only a short time ago by the Chairman of the Council, has recently met to study various plans and report back with recommendations as to the type of Plan for the Prepayment of Physicians' Services which can best be operated and controlled by the Society. In the short space of time allotted to your committee, it might be stated that individual members have studied the problem and consulted with insurance authorities prior to the meeting of the committee on Thursday, July 17, 1958, at the Society office.

During the meeting, the information gained from two previous conferences with representatives of a large commercial insurance carrier, and also information reported by two members who had consulted with representatives of another large commercial insurance carrier a few days prior to our meeting, was correlated with data obtained from the United Medical Service, Inc., from the Council on Medical Service of the A.M.A. and many other sources.

From all these data and from these consultations, it appears feasible for the State Society to set up a prepaid medical care plan. The preliminary effort of the committee would indicate that it could offer two alternate plans for further study.

Plan I. A prepayment plan combining service benefits with indemnity payments designed to be under the control of the State Medical Society is hereby offered in conjunction with any or all state-approved commerical insurance companies. The Connecticut State Medical Society would determine the fee schedules and establish certain basic principles upon which such a plan would rest. This is in agreement with plans which are now being successfully operated in several states.

Under such a plan, we need not incorporate a separate medical service corporation. We could develop our own fee schedule. We could maintain a permanent liaison committee with the insurance carriers (such as our Council in conjunction with our State Third Party Payments Committee for better control).

The carriers promise conversion privileges and those in the plan before age 65 could be retained in the plan after age 65. It is quite probable, in view of the Forand Bill (of which the insurance companies are quite cognizant), that in many instances they might allow these individuals to continue coverage without a change from the group to the individual rate.

It has been ascertained that we could get direct payments of Service Benefits to the physicians and it is quite possible that "automatic assignment of benefits" will be made available for both service benefit and indemnity payments.

It is very evident that all major commercial carriers of insurance would be quite anxious to take part in such a plan, as they state there has been a great change of thinking on their part during the past ten years. They emphasize this point frequently.

Plan II. This plan would offer service benefit and indemnity payments just as the above described plan, but the Connecticut State Medical Society, as a body, would serve as the Incorporator of a legally separate and distinct non-profit Prepaid Medical Service Corporation, with a Board of Directors (the majority of whom must be physicians.)

Under this plan we would have to engage the services of either an Executive Director or a Fiscal Agent, or both.

Briefly, a corporation of this type would have the same functions and would fulfill the same public service as is now being done by CMS through the collective efforts of the physicians of this state, but the control would rest directly in the hands of the governing body under the supervision of

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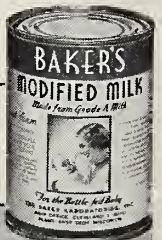

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the State Medical Society, which would retain proper representation.

The Committee is of the opinion that the problem at hand is of a highly complex nature and will require extended periods of detailed work. Consultation will be necessary with representatives of the Health Insurance Council, Blue Shield Medical Care Plans, the Health Insurance Association of America, and also with many prominent men in this field such as Dr. Louis H. Bauer, Board Chairman of the United Medical Service, Inc. of New York.

The recommendations of this committee is expressed in the following motion:

It Is Moved:

That the Council of the Connecticut State Medical Society be empowered to appoint a Special Committee which shall have the following duties:

(1) To continue the study of Plans for the Prepayment of Physicians' Services, and

(2) To submit to the Council within sixty days a functional Plan for Prepayment of Physicians' Services, and

(3) Upon action on such Plan by the Council, to submit it to the eight (8) County Associations either directly or through their respective committees on Third Party Payments for action by the membership of the eight County Associations at their semi-annual meetings, and

(4) Following action by the eight County Associations, the proposed committee shall submit the Plan to the House of Delegates at its next regular meeting, and

Be It Further Moved That:

The composition of this Special Committee shall be as follows:

(a) The members of the existing Subcommittee of the Council.

(b) The members of the Committee on Third Party Payments of the Connecticut State Medical Society, and

(c) Such additional members so that each county shall be represented, and also such additional members as the Council may deem necessary to appoint, and

Be It Further Moved:

That the Council shall designate the Chairman of this committee, and

Therefore, Mr. Speaker, I move that the House of Delegates accept this report and act upon the recommendations of this Subcommittee.

Dr. Feeney: Thank you, Dr. Weise. Motion has been made.

. . . The motion was seconded . . .

Dr. Feeney: Motion has been made and seconded that the report of the Special Subcommittee be accepted, and submitted with respect to organization, incorporation, operation and control by the Connecticut State Medical Society of the plan designed to provide prepayment for Physicians' Services be approved. Is there any discussion? Those in favor? Opposed? So voted and carried. Do you wish to act separately on the motions?

Voices: No.

Dr. Feeney: This is the action of the House. The motions included in the report are adopted. Any further business?

Voice: Move we adjourn.

. . . The motion was seconded . . .

(The House of Delegates adjourned at 1:15 P.M.)

ROLL CALL

Walter I. Russell, President
Ellwood G. Weise, Sr., President-Elect
William R. Richards, Executive Secretary
Frank L. Polito, Treasurer
David T. Monahan, Managing Editor of Journal
Thomas M. Feeney, Speaker of the House of Delegates
Michael R. Scully, Vice-Speaker of the House of Delegates
G. Gray Carter, Delegate to AMA
John N. Gallivan, Delegate to AMA
Jachin B. Davis, Councillor-at-large

COUNCILLORS

Sidney R. Kennedy, Jr., Litchfield
Willard E. Buckley, Middlesex
Israel E. Blodinger, New Haven
Henry A. Archambault, New London

ALTERNATES

Maxon H. Eddy, Bridgeport
David A. Grendon, Sharon
Norman H. Gardner, East Hampton
Samuel B. Rentsch, Derby
Richard M. Starr, New London
Ralph L. Gilman, Storrs

ELECTED DELEGATES

FAIRFIELD COUNTY

Meyer Abrahams, New Canaan
Payson B. Ayres, Cos Cob
E. Tremain Bradley, South Norwalk
Gray Carter, Greenwich
Joseph L. Carwin, Jr., Stamford
Louis F. Castaldo, Bridgeport
George R. Cody, South Norwalk
Rudolph A. Colmers, Stamford
Edwin R. Connors, Bridgeport
William H. Curley, Jr., Bridgeport
John H. Grossman, Bridgeport
Benjamin Epstein, Danbury
John E. Grigas, Greenwich
George W. Hebard, New Canaan
Elwood K. Jones, Bridgeport
Nathaniel Kenigsberg, Bridgeport
Clifford W. Mills, Norwalk
John F. Nolan, Bridgeport
John G. Frothingham, New Canaan
Francis A. Read, Old Greenwich
Max Alpert, Bridgeport
Edward J. Sokolski, Danbury
Edwin F. Trautman, Trumbull
Jacques Van B. Voris, Darien

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Raymond J. Caldarelli, Hartford
Armanno W. Ciccarelli, Hartford
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Elizabeth Cornfield, New Britain
Arthur J. Driscoll, Bristol
Alan A. Dun, Newington
George M. Gara, Southington
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Francis W. Trapp, New Britain
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George L. Cushman, North Woodbury
George A. Fowler, Sharon
Isadore S. Goldberg, Torrington
Robert C. Sellow, Jr., North Canaan

Middlesex County

John R. Egan, Old Saybrook
Richard F. Grant, Cromwell
Archibald W. Thomson, Jr., Middletown
Charles W. Chace, Middletown

New Haven County

Donald H. Badner, Meriden
Louis C. Backhus, Waterbury
Robert F. Buckman, Milford
Harry L. Berman, New Haven
Edward J. Blumenthal, Ansonia
Abe S. Brown, Waterbury
Joseph F. Burke, Waterbury
Henry Caplan, Meriden
Luca E. Celentano, New Haven
Michael J. Conroy, Meriden
Morris Coshak, Waterbury
Charles S. Culotta, New Haven
Clyde L. Deming, New Haven
Max Caplan, Meriden
John M. Freiheit, Waterbury
Bernard Burnham, Waterbury
Charles T. Flynn, Sr., New Haven
Hyman A. Levin, New Haven
Waldo E. Martin, Milford
Dana Blanchard, Branford
Jack Galen, Ansonia
Samuel A. Robb, Meriden
Oscar Regal, Seymour
James H. Root, Jr., Waterbury
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COUNCIL MEETING

Thursday, August 14, 1958—4:00 P.M.
160 St. Ronan Street, New Haven, Connecticut

A regular monthly meeting of the Council was called to order by the Chairman, Dr. Feeney, at 4:00 P.M. on Thursday, August 14, 1958. Present in addition to the Chairman were Doctors Russell, Weise, Richards, Polito, Monahan, Gallivan, Davis, Clarke, Kennedy, Buckley, Blodinger, Archambault, Eddy, Grendon, Rentsch, Starr and Gilman. Absent were Doctors Carter, Weld, Scully, Gens, Schiavetti, Ottenheimer, Seigle, Gardner and Hughes.

Before consideration of the agenda was begun, the minutes of the meeting of July 8, 1958 were offered to the Council for corrections, additions or deletions. None were made and the minutes were accepted as correct.

1. COORDINATOR FOR MEDICARE PROGRAM

(a) The name of Daniel F. Levy of New Haven was proposed as a candidate for this position. Dr. Blodinger agreed to discuss the matter with Dr. Levy personally and the Executive Secretary was directed to inform Dr. Levy of the Council's action. Dr. Grant Irving of the Aetna Life Insurance Company was proposed as an alternate candidate in the event Dr. Levy was unable to accept.

(b) Harold M. Clarke, Chairman of the Medicare Committee, reviewed the problems of the Medicare program, stating that CMS, the Fiscal Agent, is trying to settle the in-hospital medical claims held up because of an error in the old fee schedule and that the problem with claims under the renegotiated fee schedule is that physicians have not yet received the new schedule. CMS is returning the claims and requesting that they be re-submitted and providing the physician with the fee allowable under the new contract. Dr. Clarke assured the Council that the fee schedule will be printed and distributed as soon as possible.

(c) A telephone communication from Dr. Daniel Hanley, Executive Secretary of the Maine Medical Society, was transmitted to the Council suggesting that representatives from the New England States meet to discuss the problem of curtailment of the Medicare plan by restrictions which will undoubtedly be imposed by the Department of Defense. The Council felt that such a meeting is not necessary at this time and the Executive Secretary is to inform Dr. Hanley of the Council's opinion.

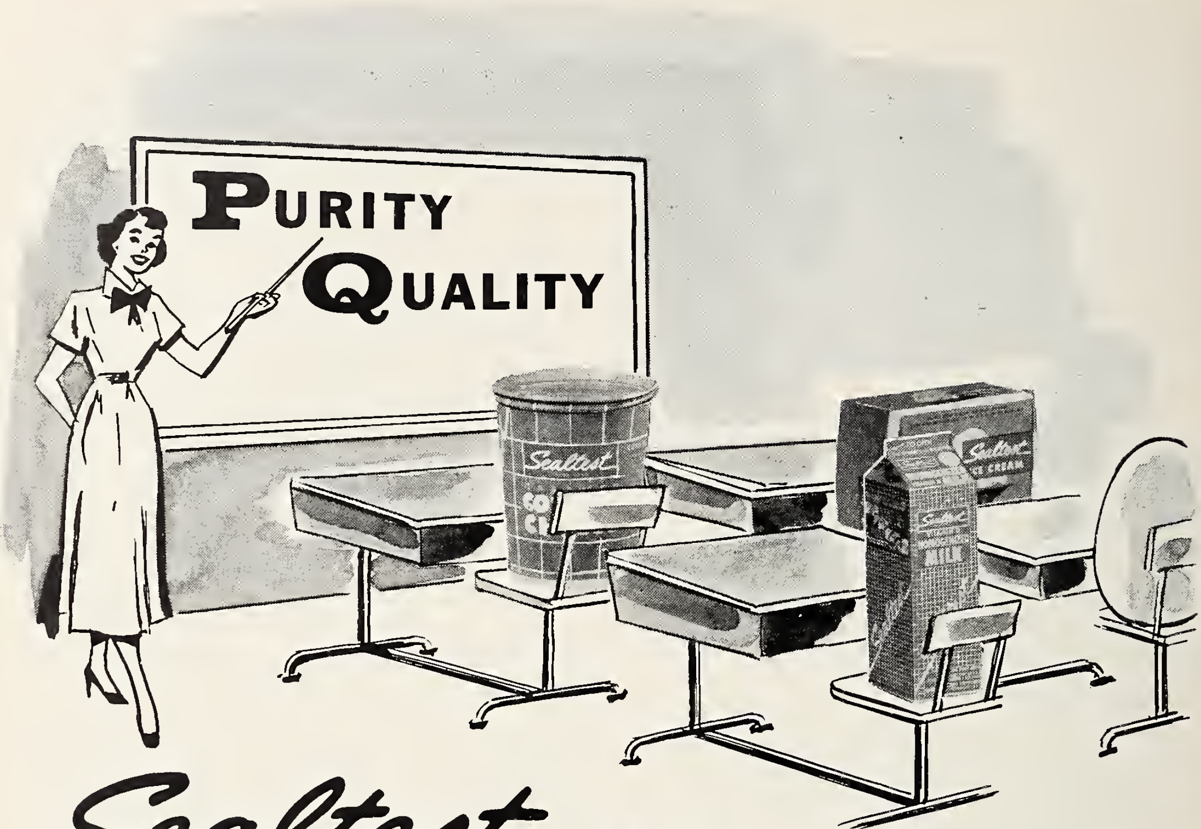
2. MEDICAL ADVISORY COMMITTEE TO STATE POISON INFORMATION CENTER

(a) It was voted that the Committee submit its reports and recommendations directly to the Department of Health after consultation with the Chairman of the Committee on Public Health and that copies of such reports be submitted to the Council for information.

(b) Since the Committee is providing advice for the State Department of Health, it was voted that medico-legal advice be obtained from the State Attorney General's office through the Department of Health.

3. COMMITTEE ON THIRD PARTY PAYMENTS

(a) It was voted to approve the establishment of liaison by the State Committee on Third Party Payments with the eight county association committees of the same type



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and in general carry out its functions as stated in the by-laws and as further determined by actions of the House of Delegates and the Council.

It was VOTED that the Chairman of the Council appoint a committee of three to study and propose revisions in the structure and functions of the Third Party Payments Committee and to report to the Council with a view to presenting recommendations in this regard to the House of Delegates.

It was VOTED that the Executive Secretary be directed to call to the attention of the Chairman of all Standing and Special Committees of the Society Article X, Section 1, Paragraph 3 of the by-laws.

(b) The Committee on Third Party Payments submitted their recommendations on review of the report of the Committee on Third Party Payments rejected at the House of Delegates on April 29, 1958. The following action was taken:

Section IV, V, Postpone action. Refer to the committee of three as appointed above to revise, etc.

Section VIII, Postpone to next meeting of Council awaiting final report of A.M.A. in this respect.

Section IX, No action.

Action on entire report postponed until items above have been clarified.

4. RECOMMENDATIONS FROM COMMITTEE ON MENTAL HEALTH

A letter from Dr. John Donnelly, Chairman of the Committee on Mental Health was read consisting of two recommendations—(1) That the Council write a letter of commendation to Congressman Morano for his work in obtaining extra funds for research in schizophrenia. DISAPPROVED. (2) That a news release be published in the Journal of the Connecticut State Medical Society and it was VOTED to submit the proposed news release to the Editor of the JOURNAL without comment.

5. ADDITIONAL ALLOTMENT TO COUNCIL

It was VOTED that an additional $500 be allotted to the Council for expenses.

6. REPORT OF COUNCIL SUB-COMMITTEE RE: JOURNAL

Since only one member of the sub-committee beside the Chairman was present at the meeting, Dr. Polito stated that he did not have a report at this time but would plan to present such a report at the Council meeting in September or October.

It was VOTED that the Connecticut State Medical Society publish a Roster of Members at five year intervals and that supplements be printed annually. The roster will be distributed only to those who request it at a price to be determined by the treasurer. An amendment was voted to provide for an initial printing of 3,000 copies.

7. APPOINTMENT TO STATE ADVISORY COUNCIL FOR CONNECTICUT HOSPITAL AND MEDICAL FACILITIES SURVEY AND CONSTRUCTION PROGRAM

It was VOTED to request the Chairman of the Committee on Hospitals to suggest a candidate in place of Dr. Barker to serve on the State Advisory Council for Connecticut Hospital and Medical Facilities Survey and Construction Program.

8. LOBBYIST FOR 1959 GENERAL ASSEMBLY

It was VOTED that the Chairman of the Council and the Executive Secretary investigate the feasibility, advisability, possible cost and a possible candidate for a professional lobbyist to represent the Society at meetings of the State Legislation, 1959 General Assembly.

9. ANNUAL CONGRESS ON INDUSTRIAL HEALTH

It was VOTED to authorize Dr. Kilgus, Chairman of the Committee on Industrial Health to attend the 19th Annual Congress on Industrial Health, Cincinnati, February 16, 1959 and that the Council appropriate funds to cover Dr. Kilgus' expenses in the budget of the Committee on Industrial Health for 1959.

10. REGIONAL MEETING OF COMMITTEE ON CIVIL DEFENSE OF THE A.M.A.

It was VOTED that Dr. Reginald C. Edson, Chairman of the Committee on Casualty Planning be the only representative of the Society authorized to attend the Regional Meeting of the Committee on Civil Defense of the American Medical Association in September 1958.

11. INVITATION FROM NEW HAVEN COUNTY TO HOLD 1959 ANNUAL MEETING

It was VOTED to accept the invitation of the New Haven County Medical Association to hold the 1959 Annual Meeting of the House of Delegates in the New Haven area.

12. APPOINTMENT OF SPECIAL COMMITTEE TO CONTINUE TO STUDY PREPAYMENT PLANS

In completing the composition of a special committee to study prepayment plans as outlined by the sub-committee of the Council's motion at the July 22, 1958 House of Delegates meeting, the following Committee was appointed:—

Members of the existing sub-committee of the Council.

Elwood C. Weise, Sr., Bridgeport
Israel E. Blodinger, New Haven
John N. Gallivan, East Hartford
John P. Gens, Norwalk
David A. Grendon, Sharon

Members of the existing Committee on Third Party Payments.

Max Alpert, Bridgeport
Frank K. Abbott, Waterbury
Harry Bellach, New Britain
Max Caplan, Meriden
Francis Gallo, Winsted

Representatives from Tolland, New London, Middlesex, Windham were named as follows:

Norman Gardner, East Hampton-Middlesex
Alfred Schiavetti, Stafford Springs-Tolland
Joseph Becker, New London-New London
Leo G. La Palme, Putnam-Windham

It was voted to appoint Dr. Elwood C. Weise, Sr. as Chairman.

13. REQUEST FROM MEDICAL RELATIONS COMMITTEE OF HEALTH INSURANCE COUNCIL

It was VOTED to authorize the Special Committee to Study Prepayment Plans to meet with the Connecticut Medical Relations Committee of the Health Insurance Council as requested by Dr. K. F. Brandon.

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14. DISCUSSION OF CMS

Dr. Feeney informed the Council that the negotiating subcommittee had met with the mediators from the Blue Shield Medical Care Plans and that a tentative date had been set for August 24th for a joint meeting of the negotiating subcommittees of CMS and the Council with the Blue Shield mediators.

A motion that the Sub-committee of the Council approve nothing except the restoration of recall clause and submit all other proposals which might be made by the Blue Shield mediators to the Council for approval was not carried.

15. ALLOTMENT TO PUBLIC HEALTH COMMITTEE FOR SUB-COMMITTEE ON SCHOOL HEALTH

It was VOTED not to grant an appropriation of $300 to the Committee on Public Health for the purpose of publishing and distributing the Second School Health Conference Report.

16. REPRESENTATIVE TO A.M.A. PLANNING CONFERENCE—AGING

A letter from Dr. John Donnelly, Chairman of the Committee on Aging was read for information and it was VOTED that an additional representative other than Dr. Donnelly to attend the AMA Planning Conference on Medical Society Action in the Field of Aging was not necessary.

17. REVISION OF MENTAL HEALTH BY-LAW

It was VOTED to accept the following proposed revision of Article X, Sec. 3, Par. 13 of the By-Laws:

"The term of office for members of the Committee on Mental Health shall be for four years. Beginning with the annual meeting of 1959, the Nominating Committee shall nominate to the House of Delegates a Committee on Mental Health which shall consist of not more than eight members, of whom two members shall serve one year, two members shall serve two years, two members shall serve three years and two members shall serve four years. Thereafter, at each annual meeting of the House of Delegates, two new members shall be nominated to the Committee to serve four years to replace the two members whose terms expire.

The Nominating Committee shall nominate the Chairman of the Committee on Mental Health.

The Committee shall be continually informed concerning the provisions for the care of the mentally ill in the state and those addicted to the use of habit-forming drugs and alcohol with the purpose of making information on these subjects available to the members of the Society, and if indicated, to recommend and support legislation for the improvement of the care of the persons in this state so afflicted."

This revision to be presented to the House of Delegates for approval at its semi-annual meeting on December 11, 1958.

18. GEORGE BURNS VS. GRIFFIN HOSPITAL

No action was taken on the matter of George Burns vs. Griffin Hospital and the matter was tabled.

19. STERLING SILVER DINNER SERVICE

It was VOTED that storage for the silver dinner service contributed to the Society by the Woman's Auxiliary be kept in the building and covered by insurance.

20. APPROPRIATION FOR MAILING "ADOPTION IN CONNECTCUT"

It was VOTED not to approve an appropriation for the expense of mailing the folder "Adoption in Connecticut" prepared by the Connecticut Child Welfare Association.

21. APPROPRIATIONS FOR BUILDING REPAIRS

It was VOTED to appropriate the sum of $100 for the installation of fluorescent lights in room No. 29 of the Society building and $155 for repairs on the boiler and other repairs of the heating system and that it first be reviewed by the Building Committee.

22. APPOINTMENT TO COMMITTEE ON MEDICAL EDUCATION AND LICENSURE

Dr. Feeney read a letter from Dr. Roswell D. Johnson, State Chairman for Connecticut, American Academy of Pediatrics. Dr. Johnson wished to inform the Council that the Connecticut Chapter of the American Academy of Pediatrics proposed that the Council, by means it sees best, reconsider the nomination to the Committee on Medical Education and Licensure and submit to the Governor in place of the present nominee the name of a recognized pediatrician, preferably Dr. William R. Wilson of New Haven. The Council agreed that Dr. Edward Resnick, official nominee of the House of Delegates on April 29, 1958 should remain so and that his name be submitted to the Governor for appointment before January 1, 1959. It was felt that it was outside the province of the Council to change an official nominee elected by the House of Delegates. The Executive Secretary was directed to write Dr. Johnson and assure him that when an opening next occurs on the Board of Medical Education and Licensure, the Council would give consideration to the appointment of a pediatrician.

23. DATE OF NEXT MEETING

The Chairman and the Executive Secretary were directed to set the date of the next Council meeting.

The meeting adjourned at 6:45 P.M.

THOMAS M. FEENEY, M.D.
Chairman of the Council

WILLIAM R. RICHARDS, M.D.
Executive Secretary

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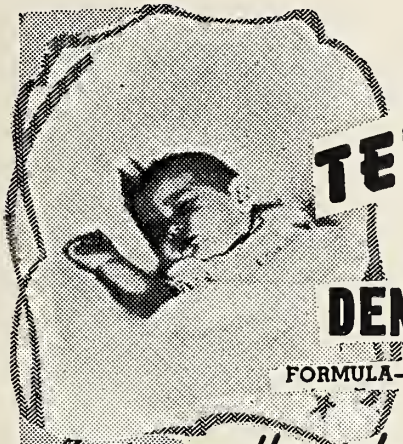

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Treasurer:
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Executive Secretary:
William R. Richards .... New Haven

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David T. Monahan .... Bridgeport

Literary Editor of Journal:
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Councilor-At-Large:
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Thomas M. Feeney .... Hartford

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Michael R. Scully .... Bridgeport

Delegates to the American Medical Association
John N. Gallivan .... East Hartford
January 1, 1957 to December 31, 1958

Stanley B. Weld .... Hartford
January 1, 1957 to December 31, 1958

G. Gray Carter .... Greenwich
January 1, 1958 to December 31, 1959

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Alternate Councilor:
Maxon H. Eddy .... Bridgeport

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Edward J. Ottenheimer ..... Willimantic

Alternate Councilor:
Ralph L. Gilman .... Storrs

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   - Malcolm M. Ellison, New London
   - Martin E. Gordon, New Haven
   - Marvin Lillian, New Haven
   - Robert M. Lowman, New Haven
   - William J. Lahey, Hartford
   - John C. Leonard, Hartford
   - Herbert Levine, Middletown
   - Howard Levine, New Britain
   - Oliver J. Purnell, Rockville
   - A. Rocke Robertson, Torrington
2. **Editorial Board of the Journal**
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   - Edward W. Foster, Meriden
   - Gerald J. Carroll, Norwich
   - Charles N. Sullivan, New Britain
   - Frederick C. Gevalt, Jr., Sharon
   - Mark A. Hayes, New Haven
   - Robert S. Gordon, New Haven
   - Samuel D. Kushlan, New Haven
   - Clarence W. Harwood, Middletown
   - Charles H. Peckham, Manchester
   - Michael S. Shea, New Haven
   - Otto G. Wiedman, Hartford
   - David T. Monahan, Bridgeport
   - President of the Society—ex-officio
3. **Committees on Hospitals**
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   - Jack H. Galen, Derby
   - Robert F. Buckman, Milford
   - Isadore H. Friedberg, Newington
   - Clyde L. Deming, New Haven
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   - Dana L. Blanchard, Branford
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4. **Committee on Industrial Health**
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   - Robert W. Butler, Waterbury
   - Norton Canfield, New Haven
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   - Morris A. Granoff, New Haven
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   - Joseph J. Stapor, Hartford
   - Ellwood C. Weise, Bridgeport
   - C. Frederick Yeager, Bridgeport
5. **Committee on Medical Education and Licensure**

   (A nomination to the Connecticut Medical Examining Board, one member for a period of 5 years commencing January 1, 1959 to succeed William R. Wilson.)

   - Edward Resnick, New Britain
   - John D. Booth, Danbury (1960)
   - Carl E. Johnson, New Haven (1961)
   - C. Louis Fincke, Stamford (1962)
   - Louis P. Hastings, Hartford (1963)
6. **Program Committee**
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   - David T. Monahan, Bridgeport
   - Orvan W. Hess, New Haven
7. **Committee on Public Health**
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   - Jack J. Blinkoff, Torrington
   - Alfred L. Burgdorf, Hartford
   - Joseph J. Esposito, Bridgeport
   - Clarence W. Harwood, Middletown
   - H. Patterson Harris, Jr., Fairfield
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   - Luca E. H. Celentano, New Haven
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9. **Committee on Public Relations**
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    - William F. Stankard, Stamford
    - John E. Thayer, Hartford
    - Vincent J. Vinci, Middletown
    - Wayne P. Whitcomb, New Haven
    - President of Cancer Society, Donald A. Bristoll, New Britain

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- William A. Geer, Bridgeport

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Mark A. Hayes, New Haven
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New Haven: Jacques H. Green, Waterbury, Chairman 1958-59
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Tolland: Roy Ferguson, Rockville
Windham: Robert B. Dinolt, Putnam

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(for a term of 1 year July 1, 1958 to June 30, 1959)

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o New Hampshire:
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o Connecticut Hospital Association:
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To Connecticut Pharmaceutical Association:
Louis E. Garston, Torrington

To Connecticut State Dental Association:
The President

To Connecticut Nurse's Association:
The President-Elect

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A. Rocke Robertson, Torrington
W. Leslie Smith, Hartford
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Stanley B. Weld, Hartford

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Maxwell Lear, New Haven
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Representative—Connecticut Advisory Committee on Food and Drugs

Hugh L. Dwyer, New Haven

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Herbert D. Lewis, New Haven
D. Dillon Reidy, Hartford
J. Forbes Rogers, Stamford
Representatives from Connecticut State Nurses' Association
Representatives from Connecticut Public Health Association
Representatives from Connecticut League for Nursing
Representatives from Connecticut Hospital Association

Conference Committee with Connecticut State Dental Association

Brae Rafferty, Willimantic, Chairman
David J. Cohen, Meriden
Cornelius S. Conklin, Bridgeport
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CONNECTICUT MEDICINE

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The Bacteriologic Diagnosis of Urinary Tract Infections

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The majority of patients with acute infection of the urinary tract* will recover symptomatically. This was true before antibiotics were available and it is true now. Despite this apparent clinical improvement there is reason to suspect that infection may persist for prolonged periods of time. The remarks that follow are concerned with the bacteriologic diagnosis of urinary tract infections. Although bacteria in the urine may not have their source in the urinary tract and although the failure to find such bacteria may not indicate absence of infection, the search for these organisms represents the best test available to determine the presence or absence of infection. These comments are not applicable to infections due to tubercle bacilli since different techniques must be applied for the detection of these organisms.

To establish the diagnosis of urinary tract infection, it is necessary that bacteria be demonstrated in the urine. This statement is true regardless of whether the patient is symptomatic or asymptomatic, whether the urinalysis is normal or abnormal, and whether one suspects the upper or lower urinary tract as possible seats of infection. Once having established the presence of bacteria in the urine, it is necessary to determine their source. One must be certain that the organisms detected in the urine come from an area of infection within the urinary tract rather than the anterior urethra (a place where organisms are normally found), or from the equipment used to obtain or culture the urine. *The evaluation of a positive urine culture cannot be made when the specimen is cultured in broth.* One organism cultured in a liquid medium will grow to profusion. It is therefore necessary to know the number of bacteria which were present in the urine when the specimen was obtained. This information is vital for proper interpretation of the urine culture.

Quantitative bacteriologic studies[1] have shown that the bladder urine of most patients with infection of the urinary tract contains 100,000 or more organisms per ml. On the other hand, contaminants are usually present in a concentration of 1000 per ml. or less. The reason for the high concentration of organisms found with infection is that the common offending organisms multiply readily in the urine. It has been demonstrated in patients with pyelonephritis, that urine obtained from the renal pelvis might contain fewer than 10,000 bacteria per ml. at the same time that bladder urine contained 100,000,000 organisms per ml.[2] Since bacterial mul-

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* For the purposes of this discussion, "urinary tract" is taken to mean bladder, ureter and kidney.

From the Department of Internal Medicine, Yale University School of Medicine.

tiplication in the urine may be necessary to reach a concentration of 100,000 organisms per ml., it is obvious that inhibition of this growth will result in the finding of many fewer organisms.

Bacterial growth in the urine may be inhibited by lowering of the urine pH or by the presence of antibacterial substances. Under these circumstances two situations might arise; the first is that multiplication of organisms is inhibited in transit from renal pelvis to bladder with the result that urine culture reveals a low ("insignificant") number of colonies per ml. of urine; the second is that irrespective of the number of organisms in the urine, cultures would appear sterile because of inhibition of growth in the bacteriologic laboratory media.

Sometimes low ("insignificant") numbers of organisms are found in the urine of patients with urinary tract infections although the urine does not inhibit bacterial multiplication. If repeated cultures are taken in such patients, however, larger ("significant") numbers of organisms are usually detected. In one febrile patient who initially had a sterile urine, daily urine cultures for one week were required to establish this point. In making a final evaluation of the significance of bacteria found in the urine, consideration must be given to consistency as well as quantity. Rarely, patients have been encountered in whom the number of bacteria in many urine samples was never observed to reach the magic number of 100,000 or more per ml. despite the fact that the same organism was recovered each time. It seems probable that such patients had true urinary tract infections. In addition, one must always be alert to the possibility of infection with anaerobic organisms or tubercle bacilli in a patient with a clinical picture or urine sediment findings suggestive of infection in whose urine low numbers of organisms are consistently found.

The preceding comments apply to any urine specimen to be subjected to bacteriologic study, irrespective of the method used to obtain this urine. Recently, the means by which urine specimens should be obtained have become the subject of much discussion.[3] Whenever possible it would seem appropriate to avoid the use of catheters to obtain urine samples, in view of the demonstrated risk of thereby introducing bacteria into an otherwise sterile bladder.[4] A "clean voided specimen" has proven to be the method of choice for obtaining urine samples from cooperative male or female patients.[5]

The urine specimen must be collected in a sterile container and should immediately be subjected either to bacteriologic studies or refrigeration. Refrigeration for as long as 48 hours inhibits the multiplication of common pathogens without diminishing their number significantly. If the urine is allowed to stand at room temperature, rapid multiplication of few organisms will destroy the validity of any result obtained. If there is question regarding the competence of an examination performed at an inconvenient hour, refrigeration will allow for later confirmation by experienced personnel.

A variety of techniques are available for determining the number of bacteria in the urine. The validity of all of them is dependent upon the use of sterile technique. It should be emphasized that 0.3 ml. of urine is more than is necessary to perform all of the bacteriologic studies to be outlined.

1. *Methylene blue stain of a drop of uncentrifuged urine.* If bacteria are seen in such a preparation they are probably present in a concentration equal to or greater than 100,000 per ml. Failure to visualize them does not mean they are not present in such a concentration. This is a simple technique. It allows for prompt diagnosis in most cases of acute infections of the urinary tract. It is valuable also in diagnosing infection with anaerobic organisms when bacteria might be visible on methylene blue stain yet "no growth" reported by the laboratory. Under such circumstances anaerobic media should be inoculated. If immediate antibiotic therapy seems indicated, it can be started on the basis of having seen organisms in the stained smear of uncentrifuged urine. However, precise identification of the organism and knowledge of its sensitivity to a spectrum of antibiotics is necessary for rational therapy. Therefore, urine culture should always be performed in conjunction with examination of the stained smear.

2. *Streak of one loopful of uncentrifuged urine on solid bacteriologic media.* One large (about 2 mm. in diameter) loopful of uncentrifuged urine is approximately 1/100 of a ml. Multiplying the number of colonies found after 24 hours incubation by 100 gives one an estimate of the number of organisms per ml. present in the original urine sample. The presence of 1,000 colonies on such a plate indicates an original concentration of 100,000 organisms per ml. Isolated colonies may then be examined by standard techniques for precise identification and antibiotic sensitivity. Once again the technique of such an examination is simple. The facilities for carrying out such a test should be available in any bacteriology laboratory.

3. *Preparation of agar pour plates containing 1 ml. of a 1/1000 dilution of uncentrifuged urine.* A more precise method for quantitating urine cultures consists of adding to a tube of melted agar 1.0 ml. of a 1/1000 saline dilution of uncentrifuged urine. After thorough mixing in the agar the contents are emptied into a sterile petri dish and allowed to harden. By means of a transillumination device the number of colonies visible after 24-48

hours of incubation are counted. In such a preparation 100 colonies would be indicative of an original concentration of 100,000 organisms per ml. When this technique is used, method #2 (streak of 1 loopful of urine on solid media) is utilized as well, to provide for more rapid identification and to serve as a check on the number of colonies found.

Although this report deals principally with the initial diagnosis of urinary tract infections, it is crucial that the above techniques be applied to the long term follow up of patients as well. A therapeutic regimen should be considered successful only if cultures are consistently sterile one, four, and thereafter every 6 weeks for at least 6 months after therapy has been discontinued. There is no justification for assuming the absence of infection in patients who are asymptomatic and/or have normal urinalysis. The relief of symptoms and disappearance of white cells from the urine cannot be equated with eradication of infection.

SUMMARY

The results achieved by the use of antibiotics in the treatment of urinary tract infections are far from satisfactory. Much has yet to be learned about the natural history of these infections before the effects of antibiotic therapy can be properly evaluated. Only by the consistent use of quantitative bacteriologic techniques will progress be made in understanding and eventually controlling not only the problems of a particular patient, but one of the most ubiquitous problems in medicine today.

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THIRTY-THIRD CONNECTICUT CLINICAL CONGRESS

(see page 738)

of the

CONNECTICUT STATE MEDICAL SOCIETY

and the

YALE UNIVERSITY SCHOOL OF MEDICINE

Hotel Statler, Hartford

November 5, 1958

Adequate Excision of Basal Cell Carcinomas

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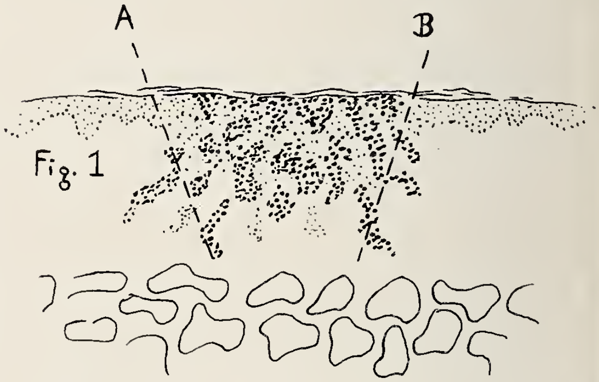
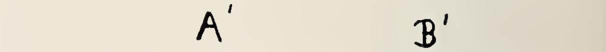
Recently two patients afflicted with basal cell carcinoma were seen who presented a considerable problem in treatment. The clinical history and findings are annotated later in this report. The study of these two patients stimulated analysis of the problem of excision of basal cell carcinomas wherever they are located. In evaluation of surgical extirpation of a tumor, the cardinal criterion of a satisfactory performance is the absence of future local "recurrence".* Failure to completely eradicate the lesion initially is particularly unfortunate, since the second attempt at control almost always necessitates a more extensive procedure.

It must be recognized that there are really two margins to consider in treating these lesions, the superficial and the deep. It is in the handling of the deep margin that inadequate surgery is most common. Figure I illustrates this situation. It is not commonly appreciated that the functional anatomy of the surgeon's hand and wrist produces a natural tendency to bevel the scalpel blade inward during the incision. Consequently the superficial margin obtained is adequate, but the result with the deep margin is not as fortunate. This inadvertent beveling will produce a specimen which is V shaped or trapezoid-like in architecture. If the tumor infiltrated in a similar V-like manner, we would not have our present concern. The unsuspected deep infiltrative nature of some of these superficial appearing lesions is frequently noted in the literature. Examination of the gross specimen is not a good index of the adequacy of margins, since with shrinking of the tissue, beveling of the edges, if present, is difficult to recognize. Figure II illustrates a simple technique for the avoidance of this operative error.

Figure III is a picture of a patient who illustrates surgical failure to control a primary lesion. He is a sixty-five year old gentleman who had a basal cell carcinoma of the skin at the root of his nose. This measured approximately three centimeters and lay between the eyebrows and the nose. It was resected and the patient did well for approximately six months. He then noticed a very small ulceration in the area of the excision. He neglected to seek medical attention, and approximately four years later the lesion had grown to the size shown. It was then again resected, but periosteum and bone had to be removed and grafting was mandatory for a satisfactory cosmetic result. This entailed a rather long



At the skin level, the excision of A to B certainly appears adequate. Looking at the cross section, however, one can easily visualize how the nature of this lesion fosters incomplete removal in the ill-defined subcutaneous area.



Instead of beveling the scalpel in the direction that the hand and wrist encourages, it is suggested that a vigilant attempt be made to direct the blade expressly opposite as in A' — B'. (This is in direct contrast to reports in the literature suggesting a direct vertical incision[2].)

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* Residual tumor is a much more appropriate term since one is still dealing with the same tumor.

From the Department of Surgery, St. Francis Hospital.

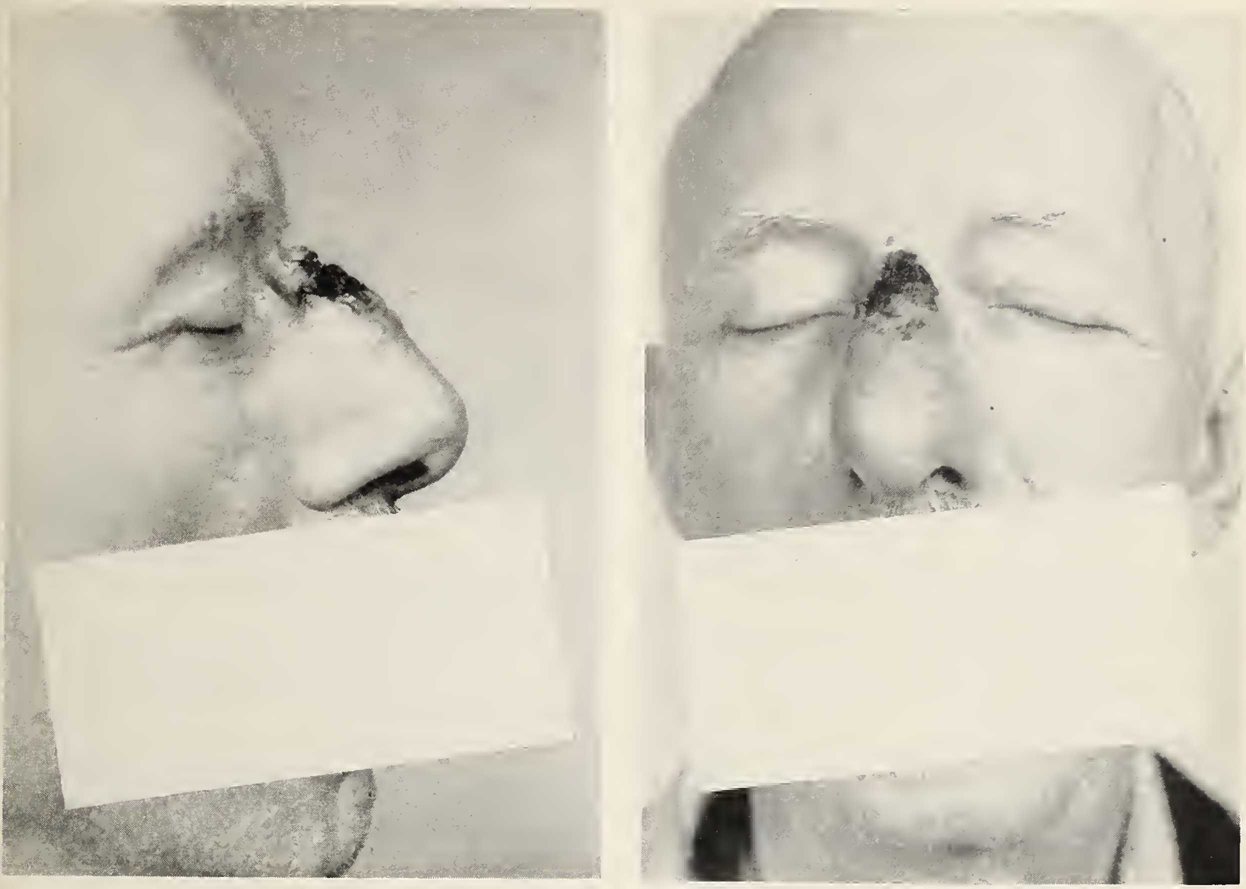

FIG. 3
(see text)

and extensive procedure for what at one time could have been controlled by a simple excision.

A second patient was not as fortunate. The duration of self-neglect was considerably longer, and it certainly must have required an unusual personality to stay away from the medical profession as long as he did. The interval between the first surgical procedure and his final hospital admission was seven years. Not only had the lesion blinded him, but also it had eroded through the skull and infiltrated the dura. He expired shortly before treatment could be attempted.

DISCUSSION

There is little reassurance in the statement by Barnett[1] that 87 per cent of basal cell carcinomas reported by pathologists as incompletely removed will not have local recurrence. Total excision of the tumor remains the primary responsibility of the surgeon. The problem arises more frequently in areas around the face where, for the sake of cosmetic effect, adequate margins of the excision may be jeopardized. This has led to statements suggesting that these lesions be treated by two different physicians, i.e. one to do the extirpation, and the other to close and worry about the cosmetic result.[1] These two cases illustrate that proper excision demands meticulous attention to the basic principles of tumor surgery.

SUMMARY

1. Two cases of "recurrent" basal cell carcinoma are presented. The potential aggressiveness and gravity of these lesions is emphasized.

2. Analysis of recurrences suggests that inadequacy of the deep margins of the excision is the most common factor. This is enhanced by the normal functioning of the wrist and hand of the surgeon, and by overconcern with cosmetic consideration.

3. A preferred method of excisional technique is presented.

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Clinical Usefulness of the Serum Butanol-Extractable Iodine (BEI) in the Diagnosis of Thyroid Disease

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The advantages of the serum protein-bound iodine (PBI, SPI) for the diagnosis of thyroid disease are well known. In recent years, another test, the butanol-extractable iodine (BEI) has come into increasing use in testing thyroid function based on the determination of iodine in the blood serum or plasma. Since this determination is now being performed by commercial laboratories, and is therefore available to all interested practitioners, it seems worthwhile to review its advantages and the indications for its use.

Of the three common laboratory methods for determining thyroid function, the blood hormonal iodine determination is the most versatile, specific and useful. The basal metabolism test has come into disrepute because it does not measure thyroid activity, but merely one of the *effects* of thyroid activity. Since many other factors, such as emotional lability, epinephrine, fever, or actively metabolizing tumor can raise the BMR while obesity and edema and tranquillizer drugs can lower it, the test is too nonspecific to be of much value. Moreover, methods of determining the BMR based on the closed-circuit system (i.e., the standard commercial basal-metabolism machine) are subject to technical errors which are not under control of the operators and which may introduce errors as large as 15 or 20 per cent.

The radioactive iodine uptake or some variant thereof, is much preferable to the BMR and offers as good an indication of thyroid function, except in cases when an enzymatic defect causes production of abnormal iodine components as the blood iodine determination *provided the patient has not previously received treatment to the thyroid gland.* After subtotal thyroidectomy, or the administration of a therapeutic dose of I^{131}, however, the radioactive iodine uptake may sometimes be misleading. Moreover, although radioactive iodine uptake studies may help establish the diagnosis in hypothyroid patients, these tests are useless for following the course of therapy, since the administration of thyroid substances of any type for treatment also suppresses the uptake of radioactive iodine by the gland.

The protein-bound iodine has proved to be highly satisfactory in avoiding many of the difficulties of the other two diagnostic methods. It is not altered by obesity, emotional upsets, tumors, infections and other influences which may modify the BMR; and it continues to be useful in following the course of patients after treatment with surgery or desiccated thyroid. Unfortunately, however, the PBI may be spuriously elevated when patients have received iodine-containing medications such as Lugol's solution. Since many vitamin preparations and cough medicines contain iodides, the PBI may be falsely elevated and yet the physician may not recognize that the patient has had an iodide intake sufficient to cause confusion. Moreover, after radioactive-iodine treatment for hyperthyroidism, the thyroid may secrete abnormal iodine containing compounds which are metabolically ineffective but which appear as protein-bound iodine. The butanol-extractable iodine method was developed in an attempt to avoid these sources of confusion.

The butanol-extractable iodine content of normal plasma is about 0.5 gamma per 100 ml. lower than that of the protein-bound iodine. The range of normal values varies with the age of the patient and is elevated in pregnancy. (Table I). Concentrations less than the normal range are seen in hypothyroidism, and higher concentrations are seen in hyperthyroidism. Unlike the protein-bound iodine, the BEI is not affected by prior administration of Lugol's solution. Since the abnormal iodine-containing compounds released after irradiation of the thyroid do not contribute to the BEI, this determination is more accurate and specific in patients who have had previous treatment with I^{131} than is the PBI.

Table I

Normal Range of Butanol-Extractable Iodine Concentration Compared with P.B.I.

AGE	RANGE UG PER 100 ML. SERUM	
	BEI	PBI
4-5 days	7.2-13.2	
8 wks.-10 yrs.	4.5-7.3	
10-18 yrs.	3.2-5.3	
Adults	3.2-6.4	3.8-7.8
Pregnant women 10-40 wks.)	5.5-10.5	6.2-11.2

From the Department of Internal Medicine, Yale University, School of Medicine.

Under certain circumstances, the thyroid gland may spontaneously produce and release abnormal iodinated compounds, such as mono- or diiodotyrosine into the circulation. Since these substances are metabolically inactive, the failure of the gland to produce adequate amounts of thyroxine causes the pituitary to increase its secretion of thyroid stimulating hormone. As a consequence, the gland becomes larger. In nontoxic goiters of this type, the excessive amounts of iodotyrosines in the plasma may be misleading because, although inactive metabolically, they are determined by the PBI procedure. Since these substances are not measured by the BEI method, an accurate estimate of thyroid function can be obtained in such cases only if the butanol-extraction procedure is used. This fact may be of further practical usefulness in the differential diagnosis of nontoxic goiters since an elevated PBI in the presence of a normal or low BEI indicates a fairly definite type of thyroid enzymatic abnormality associated with specific failure to form thyroxine by normal channels.

Like the PBI, the BEI is spuriously lowered by mercurials, i.e., diuretics, but spuriously and often excessively elevated by organic chemicals such as gall-bladder dyes, lipiodol and the X-ray dyes used for excretory urograms or for the delineation of blood vessels. The duration of the spurious elevation varies with the type of dye and the procedure used. After retrograde pyelograms, often no elevation occurs. With intravenous pyelograms the elevation may last as long as 4 months. After ordinary gall-bladder series, the determination is likely to be misleading for as long as three months; however, if the dye TERREDEX is used, the abnormality is *permanent,* since this material is apparently not excreted from the blood.

Special precautions must be taken in drawing blood for the BEI determination, but these precautions are not different from those used for the PBI. The needle and syringe and test tube should never previously have come in contact with organic iodine-containing compounds. The simplest way of assuring freedom from contamination is to use new equipment to draw the blood, or to set aside equipment which will not be used for other purposes and will not be contaminated by being washed or handled with other equipment which may have traces of organic iodine-containing compounds. The patient, should, of course be interrogated carefully to make sure that he has not been exposed to the contaminating influences mentioned above recently enough to interfere with the determination.

SUMMARY

Since the BEI does everything that the PBI does, but with greater precision and specificity, the protein-bound iodine procedure should not be used, except in the rare instances where the diagnosis of nontoxic goiter may be clarified by comparison of the PBI and BEI as described above. In its place, the butanol-extractable iodine determination should be used as the best method now available both for diagnostic purposes and for following the course of treatment.

THIRTY-THIRD CONNECTICUT CLINICAL CONGRESS
(see page 738)

of the

Connecticut State Medical Society

and the

Yale University School of Medicine

Hotel Statler, Hartford

November 5, 1958

Carcinoma or Cardiospasm?

A Roentgen Study

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In recent years, considerable attention has been focused upon disorders of the lower end of the esophagus—their pathogenesis, diagnosis and treatment. Of the many problems presented, one which bedevils the clinician and radiologist alike is the differentiation of idiopathic cardiospasm from apparent cardiospasm produced by invasion of the lower esophagus by carcinoma of the fundus of the stomach.

It is well known that malignant tumors of the fundus of the stomach may extend into the esophagus and produce an irregular segmental constriction

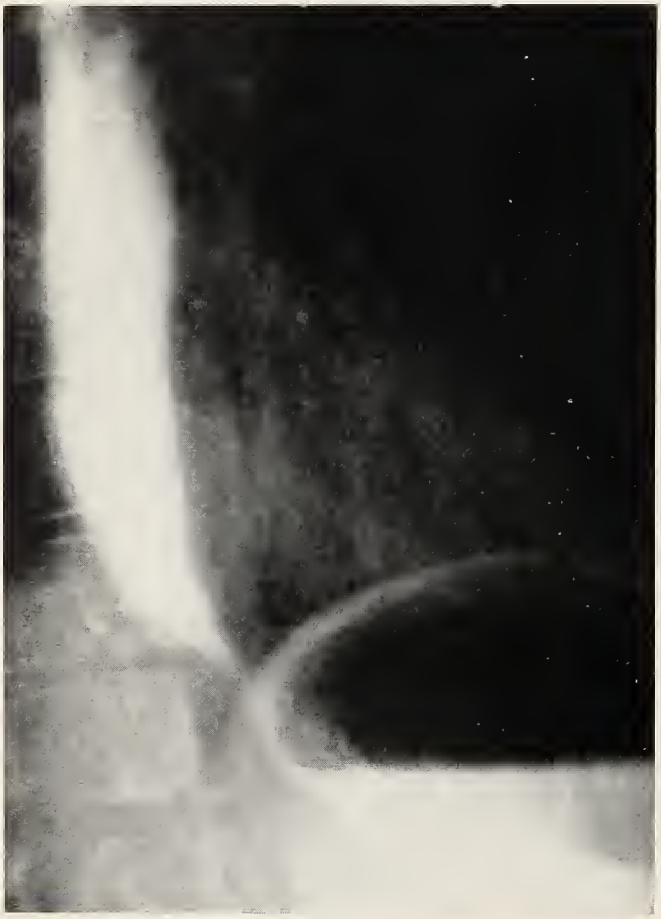

Figure 1A

Idiopathic cardiospasm. In the erect position, the slightly dilated esophagus retains barium and the lower end tapers in a smooth conical manner. The air filled gastric fundus closely approximates the diaphragmatic leaf.

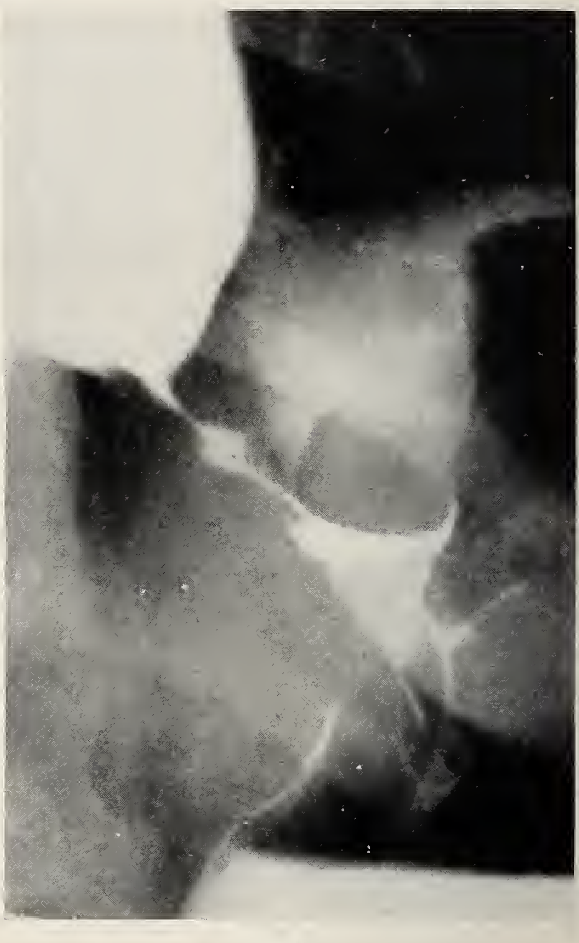

Figure 1B

The appearance of cardiospasm is produced by a large lobulated mass filling the medial half of the gastric fundus with infiltration of the region of the esophagogastric junction.

From the Department of Radiology, the Mount Sinai Hospital, New York, N. Y.

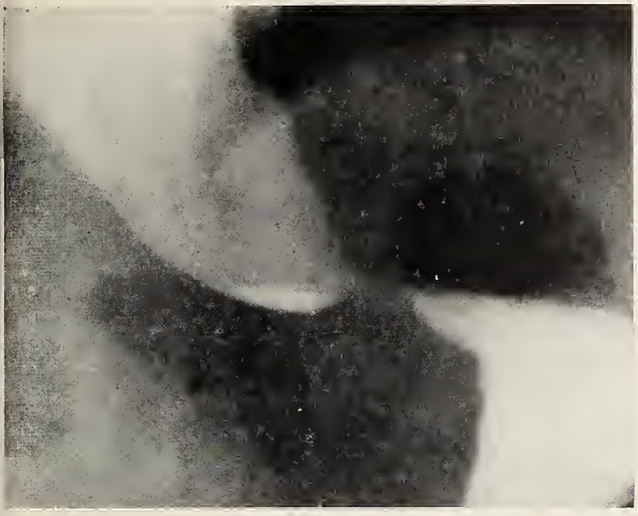

Figure 2A

Limited distensibility of the gastric fundus with increase in the soft tissue shadow between the air filled fundus and diaphragm due to carcinoma of the stomach. Note narrowing at the esophagogastric junction and flattening of the left wall of the lower esophagus due to extension into the esophagus.

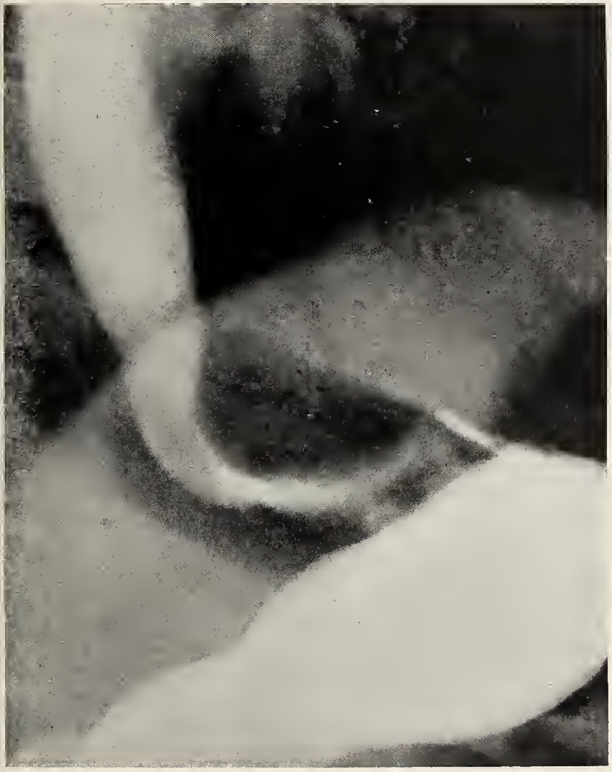

Figure 3

Carcinoma of the stomach has produced flattening and depression of the esophagogastric junction which follows a horizontal course. Alterations in the position of the esophagogastric junction are not seen in idiopathic cardiospasm.

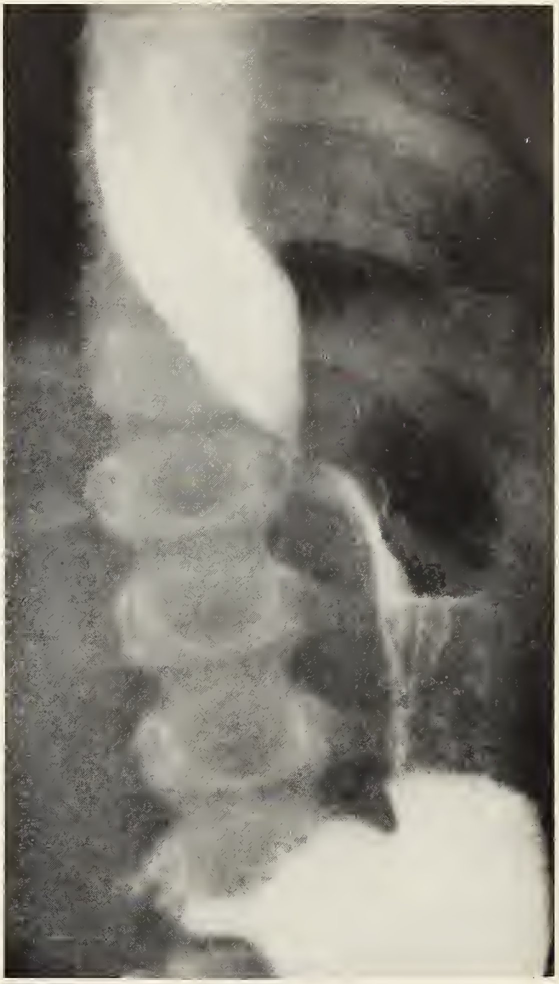

Figure 2B

Idiopathic cardiospasm with incomplete distention of the gastric fundus due to incomplete filling with air and barium simulating a mass.

of the lower esophageal lumen. In most of these cases, the resulting roentgen changes are obvious. In some, however, the esophageal invasion is so insidious and elusive that clinical and roentgen differentiation from cardiospasm may be difficult. The diagnosis may depend upon subtle roentgen alterations in the region of the esophago-gastric junction and finally upon biopsy evidence produced by the endoscopist.

The classical appearance of the esophagus in cardiospasm is one of dilatation, tortuosity and disordered motor function with delayed emptying. On occasion, despite dilatation of the lumen, the course of the esophagus is unaffected. In such cases it may be difficult to differentiate cardiospasm from organic strictures of the lower esophagus.

The purpose of this paper is to discuss the roentgen features differentiating these two conditions.

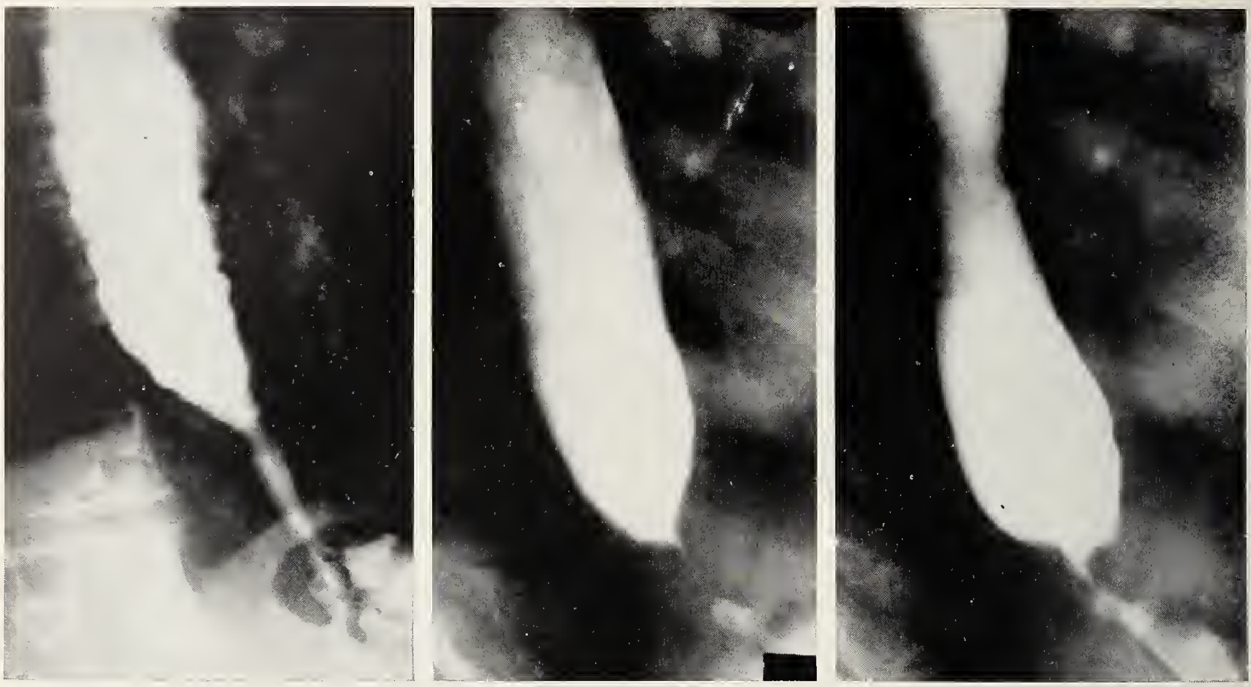

FIGURE 4A FIGURE 4B FIGURE 4C

A. In this type of cardiospasm, there is a longer segment of narrowing above the diaphragm with dilatation of the esophagus proximally. The rippled contours of the esophagus are evidence of disordered, ineffective motor activity.

B. In carcinoma with secondary cardiospasm, the narrowed segment is short and rigid. The left lateral wall of the esophagus above the narrowing is flattened.

C. In this case of carcinoma, the transition from the dilated to a narrowed, rigid lumen is abrupt and the channel is irregular in contour.

THE ROENTGEN FINDINGS

1. Alterations in the Appearance of the Gastric Fundus (Figures 1A, B, 2A, B)

A mass in the fundus of the stomach may produce sufficient narrowing at the esophagogastric junction and dilatation of the esophagus proximally to simulate cardiospasm. If the mass can be identified, the situation is clarified. However, a fundal mass, even of fairly large size, may be difficult to demonstrate, particularly if there is also limited distensibility of the gastric wall.

An increase in the apparent soft tissues intervening between stomach and diaphragm may yield a clue to the presence of gastric cancer. However, inability to distend the fundus of the stomach in cardiospasm due to incomplete esophageal obstruction may produce a similar appearance and difficulty may be encountered in distinguishing a mass from collapsed gastric fundus. Multiple positions and projections which optimally distribute the contrast material (air or barium) must be utilized.

2. Motor Activity of the Esophagus (Fig. 4A)

The peristaltic activity of the dilated esophagus is of some interest. In cardiospasm, disordered ineffectual contractions are frequent. In carcinoma, on the other hand, the presence of irregular contractions is unusual.

3. Alterations in the Configuration and Course of the Esophagogastric Junction (Figure 3)

When carcinoma of the stomach is large enough to increase the space between fundus and diaphragm, or is situated at the entrance of the esophagus into the stomach, it is usually accompanied by alterations in the appearance of the lower esophagus and esophagogastric junction. This may be manifested by extrinsic pressure upon the lumen of the esophagus. The course of the esophagogastric junction may be more horizontal than is usually seen with displacement in a caudad direction. In cardiospasm, of course, there is no unusual extrinsic pressure upon the lower esophagus, the course of which is vertical.

4. The Appearance of the Narrowed Segment at the Lower End of the Esophagus (Figs. 4A, B, C; 5A, B, C)

When there is a narrowed segment above the level of the diaphragm associated with a moderately dilated esophagus which traverses its usual pathway, the cause can be cardiospasm, esophagitis, or gastric

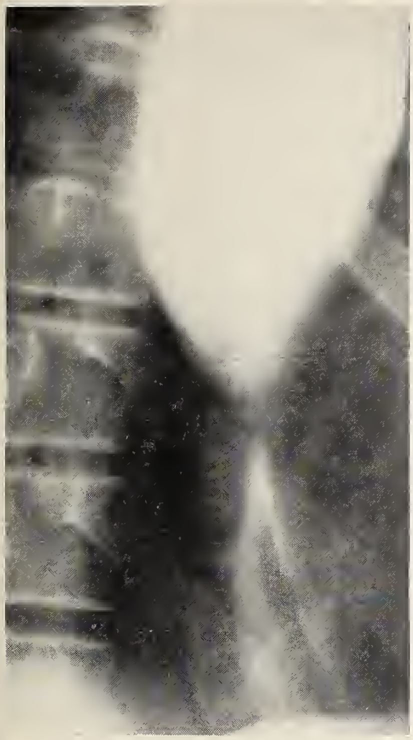

FIGURE 5A

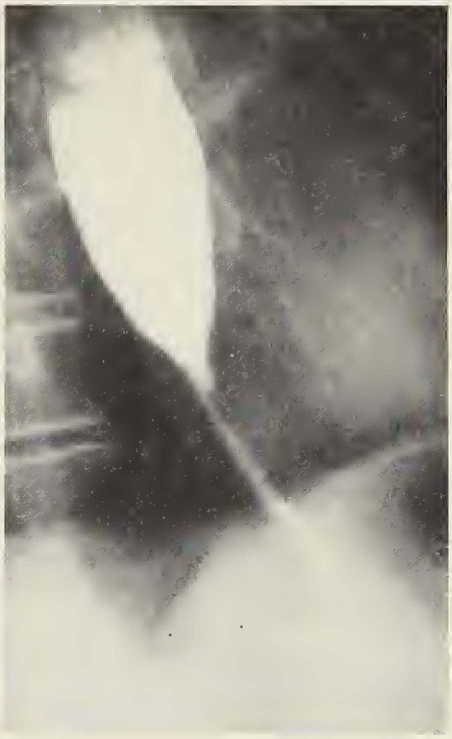

FIGURE 5B

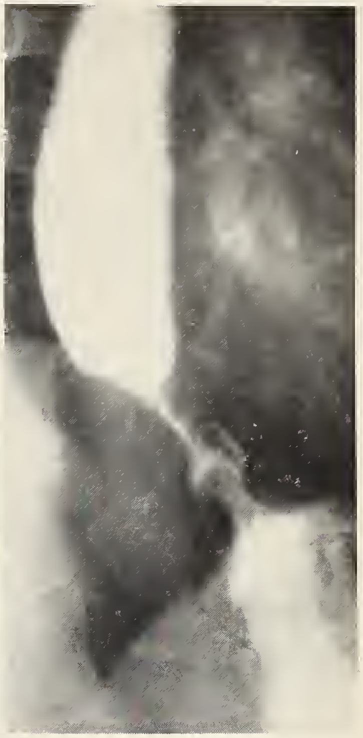

FIGURE 5C

A. The dilated esophagus is due to stricture at the esophagogastric junction incident to peptic esophagitis in a patient with scleroderma.

B. A long segment of narrowing with dilatation of the esophagus proximally due to peptic esophagitis following prolonged intubation. The esophageal lumen tapers gradually and symmetrically.

C. The esophagus is dilated and there is flattening of the right lateral wall above a short, eccentrically positioned stricture. Immediately below there is a small hiatus hernia. The clue to the presence of carcinoma of the stomach arising in an hiatus hernia is the eccentric narrowed segment and slight rigidity of the wall of the lower esophagus.

carcinoma arising in the fundus of the stomach or in an hiatus hernia.

The radiologic differentiation of a benign from a malignant process in these cases is dependent upon the demonstration of an eccentric lumen, flattening and stiffening of the esophageal wall, and, when present, a gastric mass. Since mucosal destruction may not always be present and is difficult to identify in the narrowed segment, and a gastric mass is not always demonstrable, the diagnosis depends largely upon a study of contours.

The important points to study in these cases are the appearance of the narrowed segment and of the esophagus immediately proximal to it. In carcinoma, the narrowed segment has been short, its contours have been irregular and the lumen has been rigid. An important finding in this situation is flattening of only one wall of the esophagus immediately above the stenotic segment due to irregular neoplastic infiltration. In those cases of cardiospasm, in which the narrowed segment is above the level of the diaphragm, the narrowed segment is longer than in carcinoma and small changes in the distensibility of the concentric lumen can be seen. When esophagitis is severe and causes luminal narrowing with dilatation of the esophagus proximally, the strictured segment is frequently longer than that seen in cardiospasm. The lumen, then, may be incompletely distensible or rigid, depending upon the degree of inflammatory involvement.

Carcinoma arising in an hiatus hernia with invasion of the esophagus may produce a roentgen picture similar to that seen in cardiospasm associated with an hiatus hernia. Peptic esophagitis with an hiatus hernia may also produce similar roentgen findings. It may be difficult to distinguish these three conditions. The presence of carcinoma in this situation may be suspected, however, if eccentricity of the esophageal lumen and flattening of one wall of the esophagus can be demonstrated.

5. Obstruction in the Region of the Esophagogastric Junction

Complete or almost complete obstruction at the lower end of the esophagus is rare. When it occurs, it is usually due to carcinoma. Only occasionally is it secondary to a stricture incident to esophagitis. The presence of a dilated esophagus which maintains its usual course associated with marked obstruction should particularly arouse the suspicion of carcinoma. In addition, when a typically dilated, elongated, tortuous esophagus becomes unusually obstructed, the possibility of an underlying carcinoma superimposed upon long-standing cardiospasm must be thoroughly investigated.

CONCLUSION

Carcinoma of the fundus of the stomach may extend into the lower esophagus, insidiously narrowing the lumen producing clinical and roentgen features simulating cardiospasm. The significant points to be noted, on roentgen study, in differentiating the two lesions are the identification of a gastric mass, limited distensibility of the fundus of the stomach, alterations in the course and motor activity of the esophagus, an eccentric lumen and changes in the position and contours of the esophagogastric region.

Esophagoscopy is extremely important in these cases. An accurate radiologic diagnosis indicates to the esophagoscopist where to concentrate his search for the underlying lesion. In these cases the mucosa of the esophagus is frequently intact, and only histological study of the biopsy specimen reveals the submucosal extension of cancer.

THIRTY-THIRD CONNECTICUT CLINICAL CONGRESS

(see page 738)

of the

Connecticut State Medical Society

and the

Yale University School of Medicine

Hotel Statler, Hartford

November 5, 1958

Present Day Management of Head Injuries

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Bridgeport

The patient with a head injury presents more of a problem today than ever before. As a result of the increase in traffic and in the horsepower of vehicles the number of accidents and of head injuries has multiplied. There is no doubt that due to greater facility in caring for such patients in our hospitals, the rate of salvage has improved, although the seriousness of the injuries has become greater. The family physician and the house officer particularly are often the first to see these patients and this paper has been written with this fact in mind.

It was pointed out by Harvey Cushing that the important factor in every head injury is the degree of brain injury, rather than the degree of injury to the skull. A patient may have a rather extensive skull fracture with little or no brain injury. On the other hand, a patient may suffer a serious brain injury and have no injury to the skull whatsoever. The basic method of handling any head injury depends upon a careful neurological examination of the patient when first seen in order to establish a clear baseline.

TYPES OF HEAD INJURY

1. *Cerebral Concussion*

This, of course, is a clinical term and the exact nature of the injury to the brain involved has long been the subject of debate. Various theories have been advanced. These are based on concepts that include sudden cerebral anemia or temporary paralysis of reflex activity in the brain. In any event, the patient with a cerebral concussion has suffered trauma to the brain of greater or lesser degree with impairment or actual loss of consciousness. Various symptoms develop which usually include headache, vomiting and amnesia. Prolonged symptoms of headache, dizziness, irritability and numerous other manifestations may ensue. These frequently become matters for litigation and have been grouped under the term of Post Concussional Syndrome.

2. *Brain Contusion*

This is a more serious form of injury in which trauma to the head produces a localized area in the brain in which there is vascular stasis, edema and discoloration. There may be minimal bleeding into the subarachnoid space and because of cerebral swelling, the spinal fluid pressure may be increased.

3. *Cerebral Laceration*

In this type of injury, interruption to the continuity of brain substance follows trauma to the head. Actual hemorrhage both into the brain and into the subarachnoid space occurs and ordinarily a hemorrhagic spinal fluid with coincident increased pressure results.

4. *Extradural Hemorrhage*

This is one of the operative head injuries in which, following trauma to the temporal region, there develops directly beneath the inner surface of the skull, an expanding clot which ultimately must be removed or the death of the patient ensues. In this case, the patient develops increasing headache and usually, having improved following a head injury, rapidly sinks back into a state of decreased consciousness and finally into stupor and coma.

5. *Subdural Hematoma*

This, too, is an operative form of head injury in which the patient develops increasing headache, slowing of pulse and deterioration of consciousness days, weeks, months, or even years following a head injury. Localizing neurological signs in the form of ocular muscular palsies appear, as well as weakness of one side of the body and, if the clot within the subdural space is not removed, the patient may die.

6. *Fracture of the Skull*

Fracture of the skull may accompany any of the previously described head injuries or may not be present at all. Since the emphasis has been placed upon the actual injury to the brain, the skull fracture has come to occupy its proper place in the overall clinical picture. These fractures may be simple or compound and, in general, they are linear or comminuted and either involve the cranial vault, which is the fracture most commonly visualized, or they may involve the floor of the cranial cavity and are therefore basilar in type. Of special interest is the depressed fracture which in itself may be directly responsible for the brain injury inflicted. In

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compound skull fractures, since communication is set up with the external environment, serious inflammatory effects upon the central nervous system or leakage of cerebro-spinal fluid may result.

EVALUATING THE PATIENT

It is of great importance that the first examination made of the patient with an injury to the head be complete and aimed at establishing the so-called baseline. Such an approach takes into particular consideration the change in status that may occur as time passes and establishes for any other observer what the patient's condition was on primary examination. On admission to the emergency room of any general hospital, the patient should first of all have a thorough physical examination to determine whether or not one is dealing with a head injury alone or with a head injury in combination with injuries to other systems. Having noted the state of consciousness, vital signs and the presence or absence of shock, one then may proceed to a more detailed examination of the head and the nervous system. It has often been said that if surgical shock is present, one should search for injury additional to the head injury which has presented itself.

The examination of the head must be carefully made to rule out the presence of surface injuries, whether these consist of abrasion, contusion or laceration of the scalp. If necessary, the scalp may be quickly exposed by use of an electric clipper and the surface shaved. Search for depression of the underlying skull surface may be made by carefully placing a gloved finger within any lacerated scalp wound. When these steps have been accomplished, a general neurological examination may then be carried out. It is ordinarily sufficient that this includes an evaluation of the state of consciousness, an examination of the cranial nerves with particular search made for evidence of pupilary abnormality, ocular muscle palsy or evidence of facial paralysis. This is then followed by an evaluation of the patient's motor power and reflex activity and special attention should be paid to the presence or absence of motor weakness and reflex abnormality. Such positive findings should be carefully noted on the chart for the information of a subsequent observer. By way of example, if a patient should enter the hospital with no evidence of motor weakness, then at a later interval of several hours or days, develop such a weakness, one is led to suspect the presence of an expanding clot. If, however, such a weakness was present immediately after injury, a different conclusion as to the nature of the injury to the brain would be reached.

After the examination has been completed, a specific diagnosis should then be made and the type of head injury classified on the chart. In order to be specific in this respect, spinal puncture may become necessary. If the patient is not restless or does not require restraint in order to carry out such a procedure, then it can safely be done. If the pressure is considerably elevated, no useful purpose is served in removing large quantities of fluid and there is danger of alteration in cerebral dynamics in doing so. The discovery of blood in the spinal fluid may enable the observer to more accurately place the head injury under the classification of contusion or laceration. The presence of a normal pressure curve which is followed some hours or days later by a mounting intracranial pressure may once again provide valuable evidence indicating surgical intervention. It is well to grade the seriousness of the head injury as I—II—III—IV, and so indicate on the clinical chart.

PRINCIPLES OF HOSPITAL CARE

In general, approximately 80 per cent of head injuries are non-operative and 20 per cent are operative. Each patient must be treated as an individual problem, although general principles can be laid down. Management is directed at the following:

1. Control of restlessness. Paraldehyde in adequate doses is best.

2. Observations of pulse and blood pressure are made at regular intervals to forecast changes in intracranial pressure.

3. Observation in change of patient's state of consciousness.

4. Antibiotics are used when indicated, especially in the presence of soft tissue wounds.

5. Fluids by mouth should never be given as long as there is any question of the patient's inability to swallow. Intravenous fluids sufficient to maintain adequate urinary output should be administered. It is our custom to use 1000 c.c. of 5 per cent dextrose in saline and 1000 c.c. of 5 per cent dextrose in water over a 24-hour period in the average adult. Estimate of the proper amount of fluid intake in children is of great importance. Repeated observations of the patient's biochemical status may require change in the type and amount of solution used.

6. Spinal punctures should be performed when necessary to evaluate the patient's clinical condition. As a therapeutic measure, it has not been found to be of great help and may actually be dangerous.

7. Oxygen. There is no doubt that this agent is of great value to the damaged brain. It may be administered by tent, nasal catheter or intratracheally. Neurones damaged by injury may be salvaged by maintaining a high level of brain oxygen.

8. Tracheostomy should be done immediately in gravely injured patients or whenever the question of its efficacy arises. It provides an easier method of maintaining a clear airway and thereby a better supply of cerebral oxygen is insured.

9. Change of position should be frequent to avoid vascular and pulmonary stasis.

10. Surgical intervention, once decided upon, should be carried out without delay.

SUMMARY

This paper represents an effort to set down guiding principles in the present day management of head injuries.

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Acute Cholecystitis Without Stones

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The manifestations of acute and chronic disease of the gall bladder containing stones and of the complications of the presence of calculi in the biliary tract are generally familiar to physicians. That acute cholecystitis occurs in the absence of stones has not been as commonly understood, and this entity has been discussed only occasionally in the literature.

Four cases of acute cholecystitis without stones, seen in a three year period, are herewith presented.

Case #1. E.B. Age: 52

This patient was first seen in 1952 at which time she complained of nausea and vomiting in the morning. She was known to have mitral heart disease without failure, and had taken a considerable amount of alcohol over a long period of time. She had a dilatation and curettage, total hysterectomy with bilateral salpingo-oophorectomy (for uterine bleeding and fibroids) and appendectomy. On April 25, 1956 the patient was again admitted, complaining of poor appetite and intermittent abdominal discomfort. Diagnosis on discharge was rheumatic heart disease with auricular fibrillation, mitral stenosis and insufficiency. She was again admitted on June 21, 1957 with the complaint of severe upper abdominal pain of twelve hours duration. She had eaten fried potatoes the day before. Prior to that time she had been avoiding fried and fatty foods. She had vomited four or five times. Her temperature was 99.8 degrees and the white blood count was 19,350 with 80 per cent polymorphonuclear leukocytes and five stab forms. Her temperature rose to 101.8 degrees on the second day, and on the third day to 105.5 degrees. She complained of severe right upper quadrant pain and there was definite tenderness. On the third day her white blood count rose to 26,500 with 75 per cent polymorphonuclear leukocytes and 18 stab forms. Just prior to operation the direct bilirubin was 0.12 and the total bilirubin was 0.8. At operation the gallbladder was found to be tense and red and contained a milky material culture of which revealed Bacillus proteus. There were no stones found in the gallbladder. A cholecystectomy was done.

The pathologist's report was as follows:

"Sections of the gallbladder show a considerable degree of infiltration by polymorphonuclear leukocytes and round cells, with heavy extravasation of blood. There is no evidence of neoplasm. The diagnosis is acute and chronic cholecystitis. No stones are found within the specimen."

Case #2. M.F. Age: 75

This patient was admitted on June 15, 1954. Prior to admission he had had right upper quadrant pain and diarrhea with some substernal "burning." He was nauseated and vomited once on the day before admission. His temperature was 102 degrees and rose to 103 degrees (F.). The white blood count was 13,700 with 91 polymorphonuclear leukocytes. There was tenderness in the epigastric region and a palpable mass in the right upper quadrant. On the second day his white blood count was 17,170 with 85 per cent polymorphonuclear leukocytes and three per cent stab forms. On the third day the patient's temperature had risen to 104 degrees. He was digitalized because of aortic stenosis, and was taken to the operating room with a diagnosis of acute cholecystitis.

At operation he was found to have acute cholecystitis with early perforation of the gallbladder wall. The gallbladder was edematous and thick-walled. There were several areas of necrosis noted and the omentum was adherent in these areas. There were no stones within the gallbladder. The cystic duct was not dilated and measured approximately 0.25 cms. in diameter. The common duct was examined at operation and was considered to be normal.

The report by the pathologist was as follows:

"The gallbladder sections show the wall to be greatly thickened and infiltrated by inflammatory cells. There is much extravasation of blood noted throughout and some fibroblastic proliferation noted in the mucosa which is nearly entirely gone. Diagnosis: Acute cholecystitis."

Following this operation the patient made a gradual recovery and did not become afebrile until his seventh postoperative day. He was readmitted two years later on February 29, 1956. In the interim, when he followed a low fat diet, his digestion was good. He was admitted in heart failure on this occasion and died with a diagnosis of cerebral vascular accident, arteriosclerosis and aortic stenosis. No autopsy was obtained.

Case #3. J.B. Age: 61

Patient admitted on August 14, 1957 suffering from cerebral palsy, moderate kyphosis and scoliosis. In 1953 he was found to have a para-esophageal hernia suspected of causing some gastrointestinal complaints. On the day before admission the patient had complained of midepigastric cramps and intermittent pain, but no nausea, vomiting or diarrhea. Later the pain seemed to be localized in the right upper quadrant. The white blood count was 11,000 prior to admission and the temperature was 101.4 degrees. Twelve hours before admission the patient began to vomit. The signs gradually localized in the right lower quadrant. The white blood count on admission was 14,350 with 78 per cent polymorphonuclear leukocytes and five per cent stab forms.

The pre-operative diagnosis was appendicitis, but at operation he was found to have acute cholecystitis. The gallbladder was red, tense and thickened. No stones were seen or felt

Table I.

NAME	AGE	SEX	PREVIOUS FATTY FOOD INTOLERANCE	PREVIOUS ACUTE ATTACK	ONSET	DAYS BETWEEN ONSET AND SURGERY	CHARACTER OF PAIN	CLINICAL JAUNDICE	R.U.Q. TENDERNESS AND RIGIDITY	CHILLS	HIGHEST TEMP. PREOP.	LOWEST TEMP. PREOP.	HIGHEST PREOP. W.B.C.
EB 6/21/57	52	Female	Yes	No	Sudden	3	Constant	No	Yes	Yes	105.5	99.0	26,500 75% Polys 18% Stabs 6% Lymphs 1% Monos
MF 6/17/57	75	Male	No	No	Sudden	3	Crampy ↓ Constant	No	Yes	Yes	104.2	99.2	17,850 85% Polys 3% Stabs 12% Lymphs
JB 8/14/57	61	Male	Yes	No	Sudden	2	Crampy ↓ Constant	No	Yes	No	101.2	98.8	14,350 78% Polys 5% Stabs 16% Lymphs
FS 7/27/57	61	Male	No	No	Sudden	½	Constant	No	Yes	No	100.4	98.0	19,000 77% Polys 3% Stabs 16% Lymphs 4% Monos
Averages and Totals	62½	♂ 3 = ♀ 1	Two	None	All	2.1 Days	All Constant	None	All	Two	102.2	99.0	16,000

within the gallbladder. The gallbladder had a whitish watery material within it. The cystic duct and the common duct contained no palpable stones. A culture from the gallbladder fluid revealed no growth.

The gross specimen was described as follows:

"The serosa is thickened. The wall is thickened and the mucosa is roughened. No stones are found." The microscopic report revealed: "The lamina propria of the gallbladder is almost completely replaced by a collagenous connective tissue and is moderately pervaded by lymphocytes and mononuclear cells. In addition to these chronic inflammatory cells, there are a moderate number of granulocytes extending from the lamina propria down to the submucosa and the muscular wall. Many of the blood vessels are dilated and filled with acute and chronic inflammatory cells."

After cholecystectomy the patient made a gradual recovery, was afebrile by the sixth day, and was discharged on the seventh postoperative day.

Case #4. F.S. Age: 61

This 61 year old white married male was admitted to the Waterbury Hospital on July 27, 1957 with a chief complaint of upper abdominal pain. Approximately twelve hours prior to admission he had been seized with severe right upper quadrant pain, sudden in onset and constant and progressive in intensity, with radiation to the right shoulder. About three hours following the onset of pain he became nauseated and vomited. Slight relief was obtained by lying on the left side and flexing the knees. There was no history of previous similar attacks, food intolerance, jaundice or clay-colored stools. Past history was negative for serious illnesses or operations and systemic review was negative.

Temperature was 97 degrees, pulse 100, respirations 28, blood pressure 178/106. The patient was a well developed rather obese, white male with no evidence of icterus. Pertinent physical findings were confined to the abdomen where tenderness and rigidity were noted in the right upper quadrant. No masses or organs were palpable. Laboratory work revealed hemoglobin 14.3 grams, white blood count 15,000 with 80 per cent polymorphonuclear leukocytes, 16 per cent lymphocytes and 4 per cent monocytes. Flat and upright films of the abdomen showed no free air. Chest film was negative.

Two hours following admission the patient was taken to the operating room with the diagnosis of acute cholecystitis or perforated duodenal ulcer. Exploration revealed an acutely distended gallbladder, 14 cms. in length and 8 cms. in diameter, with mottled areas of greenish discoloration consistent with early gangrene. It was removed. No calculi were found in the gallbladder or the cystic duct nor felt in the common duct. Microscopic report: "Sections of the thick-walled gallbladder show extensive necrosis and heavy leukocytic infiltration and suppuration."

Postoperatively the patient did remarkably well. His temperature was normal throughout the entire postoperative course. On the fourth day the drain was removed. All sutures were removed on the seventh day. On the twelfth postoperative day he was discharged in good condition.

It will be noted in the accompanying tables (1 and 2) that the average age of these patients was sixty-two and one half years, or about fifteen to twenty years above the average for cholecystitis in general. Three of the four patients were men, which again is contrary to the ratio of 4:1 women

TABLE II
OPERATIVE FINDINGS

NAME	GALLBLADDER	CONTENTS	SENTINEL NODE	COMMON DUCT	FREE FLUID	PATHOLOGY REPORT	CULTURE OF GALLBLADDER CONTENTS	DIED
E.B.	Tense Red	Milky	Yes	"Normal"	"Small Amount"	Acute and Chronic Cholecystitis	Bacillus Proteus	No
M.F.	Red Gangrenous Edematous Perforated	?	?	"Normal"	"Small Amount"	Acute Cholecystitis with Gangrene	?	No
J.B.	Tense Pale	Milky	Yes	"Normal"	"Large Amount"	Acute and Chronic Cholecystitis	No Growth	No
F.S.	Tense Gangrenous Red	?	?	"Normal"	?	Acute Cholecystitis with Gangrene	?	No
Averages and Totals	Perforated One	Two	Two	All	Three	All Acute Two Also Chronic		All Recovered

over men for cholecystitis in general. Two patients had a history of previous intolerance to fatty foods. Not one of the patients experienced a previous attack which could be considered to be acute cholecystitis. The onset of pain was for the most part sudden, becoming constant early and severe within two or three days. Clinical jaundice was absent in all patients. On examination of the right upper quadrant, tenderness and rigidity were constant findings. Chills were frequent with the temperature prior to operation over 104 degrees in two of these cases. The white blood count averaged 15,000 with a high of 19,000 in the patient with the lowest temperature (100.4 degrees).

At operation the gallbladder was tense in all and gangrenous in two patients. The gallbladder contents were described as milky in two cases and not described in two. A "sentinel node" (an enlarged lymph node near the junction of the cystic duct and common duct) was seen twice. In each case it measured approximately one centimeter in its greatest diameter. In none of these cases was the common duct opened, but it was palpated and visualized in each and considered normal. Some abdominal fluid was seen usually in moderate amounts in these cases. In one case the fluid was considered to be a "large amount."

The pathologist reported chronic as well as acute disease in two patients. Findings of chronicity coincided with the history of previous fatty food intolerance in both. Cultures of the gallbladder fluid were done twice and revealed Bacillus proteus in one and no growth in the other.

All patients survived cholecystectomy and were clinically and subjectively improved immediately following operation. Temperatures on the first postoperative day dropped to 99.8 degrees (F.) or below in all patients. (Table 1).

DISCUSSION

A review of the literature reveals a collected total of 2,750 cases of acute cholecystitis of which 181 (or 15.1 per cent) were found at operation not to have stones. (Table 3).

Only two of the above authors (Wolfson,[1] Glenn[3]), however, discussed the importance of the noncalculous form of acute cholecystitis as a distinct entity. Wolfson[1] believes that acalculous cholecystitis is produced by a hematogenous infection rather than by obstruction of the common duct. Glenn[3] concluded from his series that the probable sequence of events in the production of the disease is somewhat as follows: Contraction and/or infection → compression of lymphatic channels, veins, etc. → edema → compromise of vascular supply → infarction → necrosis → a gallbladder susceptible to bacterial invasion with subsequent cholecystitis. Four of his cases, however, had developed noncalculous acute cholecystitis following a recent unrelated operation. It was his impression that ingestion of fats in the early postoperative period had produced attempts at gallbladder emptying, caus-

Table III

Incidence of Acute Cholecystitis without Stones

AUTHOR	ALL CASES OF CHOLECYSTITIS	NUMBER WITHOUT STONES	PER CENT WITHOUT STONES
Judd & Phillips	508	24	4.7
Blalock	136	5	4.0
Whipple	160	30	18.7
Mentyer	38	10	26.3
Wolfson & Rothenberg[1]	379	31	8.2
Becker[2]	679	22	3.3
Glenn[3]	850	59	7.0
Totals	2,750	181	15.1

Table IV

Etiology of Cholecystitis

1. Bacterial invasion via
    a. bile
    b. blood
    c. lymphatics
2. Temporary increase in bile salts
3. Reflex of pancreatic enzymes
4. Allergic reactions (polyarteritis nodosa, endarteritis obliterans, terminal uremia)
5. Vascular obstruction (arteriosclerosis and obliteration of cystic artery, arteriolitis of the smaller branches)

ing edema of the cystic duct and a compromise in the vascular supply. Our four cases were all of a spontaneous nature.

In comparing acute cholecystitis with stones and cholecystitis without stones, Glenn believes that the onset of the disease is less sudden, pain more constant, and signs of perforation more apt to be present in the cases without stones. Wolfson,[1] on the other hand, found the onset of this disease to be more sudden, but he was in agreement concerning the constant (as distinguished from colicky) pain and the incidence of perforation. The four cases presented here all show sudden onset, constant and increasing pain, and signs suggestive of perforation.

Cole[4] has stated that partial obstruction of the cystic duct in animals will produce chronic cholecystitis without stones in 90-95 per cent of the time. He believes that folds or benign nodules are a mechanism in the production of acute acalculous cholecystitis.

Among the causes of acute cholecystitis, either with or without stones, the following have been mentioned as possible etiologic agents: bacterial invasion, temporary increase in bile salts, reflux of pancreatic enzymes, allergic reactions and vascular obstructions. (See Table 4).

In the four cases here reported, it seems that the most likely cause of the disease was a partial mechanical obstruction of the cystic duct progressing to edema and irreversible vascular damage. It may be that this is the etiology of cholecystitis in everyone. Perhaps younger persons are able to withstand a partial mechanical cystic duct obstruction because of younger arteries and arterioles in the gallbladder wall, while in the older age group the process goes on immediately to acute disease requiring immediate operation with no time for stone formation. If so, 60-year-old patients who develop acute cholecystitis without stones have been more successfully resistant to this process than the average 40-year-old person acquiring chronic cholecystitis and stones.

A reversal of the 4:1 ratio of female to male in cholecystitis with stones is noted in acute cholecystitis without stones. The increase of males over females was also noted by Glenn[3] and Wolfson.[1] This may have some relationship with the higher incidence of arteriosclerosis in males and susceptibility to irreversible "ischemia" of portions of the gallbladder.

CONCLUSION

The incidence of acute cholecystitis without stones is higher than is generally recognized, and with the advance in age and arterial disease of the population it may increase. This dangerous and sudden disease probably will affect men more frequently than women because of the greater incidence of arteriosclerosis in men. Early cholecystectomy is the treatment of choice.

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Carcinoma of the Anus

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Hartford

Carcinoma of the anus is seen infrequently and the diagnosis generally is made late in the course of the disease. Treatment has ranged from local excision to radical surgery. No treatment has been brilliantly successful. Cases have been reported involving the perianal skin and perineum as well as the anal canal up to the anorectal junction. Squamous cell carcinomas are occasionally seen as high up as the rectosigmoid,[1] perhaps on the basis of squamous metaplasia. Also cases of transitional, basisquamous and mucoepidermoid types are included in this report.

Below the pectinate line the anal canal is first covered with a transitional type of epithelium thought to be a persistant remnant of the embryonic cloaca. From the level of the anal intermuscular septum to the anal verge, the canal is lined with modified squamous epithelium. Grinvalsky and Helwig,[2] following histological study of the anus, concluded that the varied character of the anorectal mucosa and its accessory structures explains the wide difference of histological patterns in various reports.

This series consists of 21 patients seen at the Hartford Hospital over the period from 1932 to 1952. All patients were followed until their deaths or beyond five years after therapy. The average age in our series was 62 years. There were 15 males and 6 females. The youngest was 41 and the oldest 77. Five patients were under 50 so that relative youth does not preclude the possibility of the diagnosis of carcinoma of the anus.

SYMPTOMS

The presenting symptoms are tabulated in Table I and are compared to the frequency of symptoms of carcinoma of the rectum. The average duration of symptoms was ten months for carcinoma of the anus and for carcinoma of the rectum it was about five months. Nearly 50 per cent of our patients had been treated for unrelated anal and rectal conditions within a short time preceeding the diagnosis. These lesions varied widely in their gross appearance. There were small nodules and ulcers resembling fissures as well as large fungating growths. The most common symptoms were pain and bleeding. Pain is due to invasion of the sphincter with consequent spasm and tenesmus. Obstruction developed in only one case. The late symptoms of weight loss and anemia were not seen because of the localized nature of the disease. No liver metastases were found in this series. A palpable mass was noted in 40 per cent and one stoical individual harbored a mass for 18 months before consulting his physician.

Table I
Presenting Symptoms of Carcinoma of the Anus and Rectum

SITE	CHANGE IN BOWEL HABIT	PAIN	MELENA	ANEMIA	WEIGHT LOSS	MASS
Rectum	71%	44%	61%	0	3%	0
Anus	30%	60%	50%	0	0	40%

Gabriel[5] has stated that squamous cell carcinoma of the anus can be graded according to cellular differentiation and that low grade tumors may well be treated conservatively and radical therapy reserved for the more anaplastic varieties. Seventeen of our twenty-one cases were grade 2. There was no correlation between histological differentiation and prognosis in this series. Keratinization and pearl formation are characteristics of squamous lesions but not of transitional tumors, making grading more difficult. Generally speaking, the smaller, more superficial tumors were better differentiated than those seen well within the anal margin. Metastases were rare in the superficial tumors.

TREATMENT

Local excision cured one of three patients. (Table II). These three lesions were small, limited to the perianal skin and did not involve the sphincter. Yet two of these patients had prompt local recurrence and both died of their disease. In these early lesions the surgeon is tempted to preserve the sphincter. A tragedy occurs when such conservative therapy fails. Grinnel[3] has concluded from his experience that local excision of even the earliest lesions is inadequate.

Colostomy and posterior resection was followed by one cure out of three attempts. Gabriel[5] has concluded from a series of 16 patients treated in this

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manner that perineal excision of the rectum has been ineffective for curing patients with upward spread. Sweet[6] with a slightly larger series has also reached the same conclusion. One of our patients had the upward extension of his tumor transected at the time of operation, as shown by examination of the removed specimen. Needless to say, there was prompt perineal recurrence.

X-ray treatment of these surface lesions is rather appealing in that the sphincter is saved and accessible squamous lesions are said to be more radiosensitive than adenocarcinomas higher up in the rectum. In a series of 51 patients primarily treated by x-ray, Roux-Berger[7] reported a 35 per cent five-year survival. However seven of 18 cures required colostomy presumably for postradiation stricture. Sweet[6] reported a 5 per cent five-year survival after x-ray treatment. Grinnel[3] states that x-ray treatment has not been used in the Presbyterian Hospital since 1943 because of the unpleasant sequellae of pain, stricture and fecal incontinance. Our only cure with x-ray occurred in an elderly man who has done surprisingly well for eight years with a mild stricture.

Combined abdominoperineal resection has been the treatment of choice in this hospital for a number of years. This is because of the realization that anal cancer tends to invade the sphincter and lower rectum. When it has breached the mucocutaneous junction, it metastasizes along the lateral and upward routes of lymphatic drainage of the rectum. Seven of our ten patients treated by abdominoperineal resection showed lymphatic metastases in the pericolic or superior hemorrhoidal lymph nodes. Two patients had perineal recurrence. These cases are too few to be statistically significant, but it is our impression that cancer of the anus is more locally invasive than rectal cancer and a wider perineal excision is necessary. Buxton[9] has advocated removing the posterior vaginal wall in women.

Following abdominoperineal resection, the five-year survival rate was 30 per cent. This is little better than the 29 per cent five-year survival rate for the entire series. The only justification for the procedure, from these statistics, is the finding that 9 of the 21 patients had lymph node metastases out of the scope of any operation other than abdominoperineal resection. If more lesions are subsequently treated by radical surgery, it seems logical to expect the cure rates to improve.

TABLE II

CARCINOMA OF THE ANUS—RESULTS OF TREATMENT

OPERATION	CASES	OP. MORTALITY	LOCAL REC.	5-YEAR SURVIVAL	INGUINAL METASTASES	PELVIC METASTASES
Abdominoperineal	10	0	2-20%	3-30%	2	7
Colostomy & Post. Resection	3	0	1-33%	1-33%	1	?
Local excision	3	0	2-66%	1-33%	1	?
Radiation	2	–	0	1-50%	0	?
Colostomy	1	0	–	0	0	1
Biopsy	2	0	–	0	0	1

INGUINAL NODE DISSECTION

The question of whether prophylactic inguinal node dissection is indicated is more difficult to answer. Cattel,[8] Pack[9] and Bacon[10] have all advocated this procedure. Drainage of the anus and perineum by subcutaneous lymphatics to the inguinal lymph nodes occurs but the incidence of clinical metastases is low. In our series this incidence was 20 per cent, and in Grinnel's series[3] it was only eight per cent. There is free communication across the median raphe so that groin dissection, in order to be effective, must be bilateral. This is a formidable procedure accompanied by poor wound healing and lymphedema. Whether or not groin dissection gives the patient a greater chance for cure is questionable. In the experience of others, when nodes were not involved, the dissections were attended by relatively good results. When nodes were involved, there were few or no survivors.[3, 11, 12, 13] On the basis of low incidence of involvement and poor postoperative results, prophylactic radical groin dissection does not seem indicated.

What are the results when groin dissections are done at a later date at a time when metastases become clinically apparent? Stearns[11] reports that 12.5 per cent of patients who subsequently developed groin metastases were alive five years after groin dissection. As for our own experience, we have one patient alive and well five years following a radical groin dissection with positive nodes and one patient alive and well following positive biopsy of an inguinal lymph node and x-ray therapy to both inguinal regions. These two cases demonstrate that even when inguinal metastases occur, the situation is not hopeless. A groin dissection seems a logical procedure to perform when metastases appear, if the primary lesion has been controlled by abdomino-perineal resection.

SUMMARY

Grading of carcinoma of the anus by histological methods does not give adequate information concerning treatment and prognosis. More important in this regard is the size and extent of the tumor.

Symptoms are generally local in character and may mimic other anal and rectal conditions. The gross appearance of the lesion can be misleading.

The standard method of treatment is abdominoperineal resection with wide perineal margins. Results have not been brilliant in any hands. X-ray treatment will occasionally give good results in patients who are poor risks for operation.

Prophylactic inguinal dissection is not advised because of the associated morbidity and low incidence of metastases. When nodes become clinically involved, an occasional patient may be benefitted by the procedure.

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THIRTY-THIRD CONNECTICUT CLINICAL CONGRESS

(see page 738)

of the

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November 5, 1958

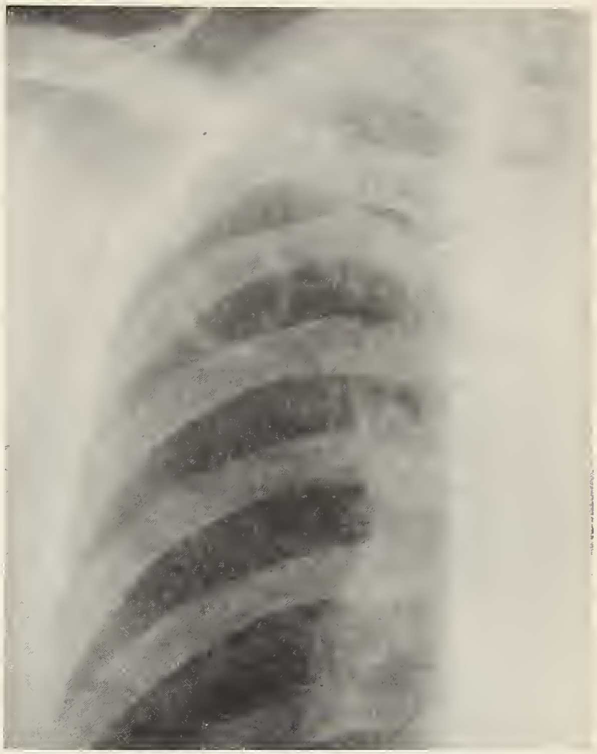
Notes from a Radiology Teaching Session

From the Memorial Unit, Grace-New Haven Hospital

Cavities in the lung often present problems in diagnoses. The present radiographic studies consist of an evaluation of three lung lesions each of which presented problems in diagnosis. The first case is that of a 41-year-old white male who complained of chest pain, muscular soreness and backache. He had a mild pharyngitis and a slightly productive cough. Four weeks before he was admitted, he had noted some periarticular swelling involving his right knee and ankle. The physical examination was negative except for the erythematous lesions seen over the anterior aspects of the legs and thighs.

The radiographic examination of the chest demonstrates a thin-walled cyst-like cavity with little surrounding parenchymal reaction approximately 2½ cm. in diameter contained in the region of the right upper lobe. (Fig. 1.) The problem in evaluating this cavity is, first, to determine whether or not this represents cavitation in association with tuberculosis. It is important to recognize that this patient is a resident of California and was admitted to a sanitorium in the San Joaquin valley. This, therefore, represents a residual type of pulmonary cavity associated with coccidioidomycosis. It is important to evaluate this type of cavity for several reasons: (1) they are often mistaken for tuberculous cavities; (2) 65 per cent of these cavities produce hemoptysis; (3) 2 per cent apparently may rupture through the lung producing secondary pneumothorax and a coccidioidal empyema.

This is a typical thin-walled cyst-like cavity with little surrounding parenchymal reaction. At times these cavities have been observed to persist in patients up to 13 years without much change in size, shape or appearance. They are usually silent, producing little symptomatology other than occasional hemoptysis. They represent stabilized or chronic pulmonary defects and do not serve as a source for progression or extension of the disease, in contradistinction to tuberculous cavities. The cavity is usually solitary, although multiple cavities do and can occur. They are almost always located near the periphery of the lung or the lobe. They are somewhat more frequent in the region of the lower lung fields than in the upper and show a predilection for the apex of the lower lobe.



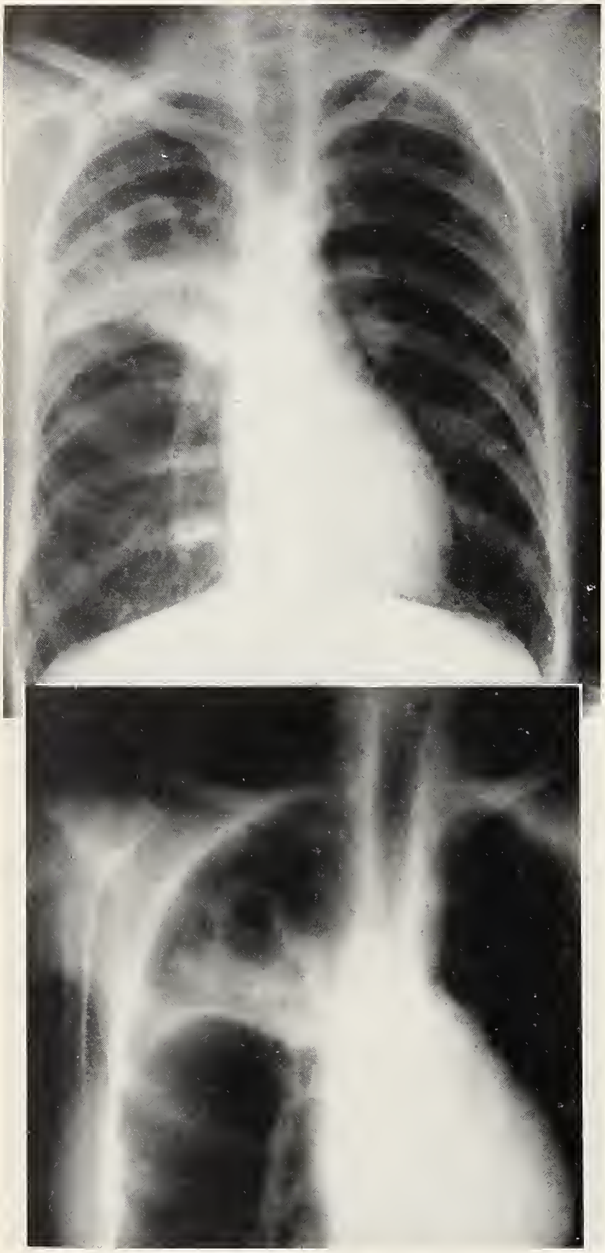
Case 1

Fig. 1. Cavitation in coccidioidomycosis.

Summary: A residual coccidioidol cavity contained in the region of the right upper lobe in a 41-year-old white California farm laborer. Note the thin-walled cyst-like appearance characteristic of coccidioidal cavitation of residual type. A right upper lobectomy was done on this patient and pathological studies demonstrated the cavity to be the result of coccidiodes.

The *second* case is that of a 22-year-old white male who complained of a chilly feeling following swimming. The chilly feelings and the fever have persisted in association with a slight productive cough. It is important to note that this young man had completed a tour of duty in Korea where he had been a prisoner of war. The cavity in this case is different from that visualized in the first study. There is a well defined area of opacification in the region of the anterior segment of the right upper lobe with upward displacement in the inter-lobar fissure. Extensive pleuro-pneumonic changes are shown. A cavity is demonstrated which is relatively thick-walled. (Fig. 2.) In addition to the upper lobe infiltration in this area, there is enlargement of several of the draining hilar nodes. Distortion of the adjacent bronchi, especially at the inferior portion of the cavity, can also be seen.

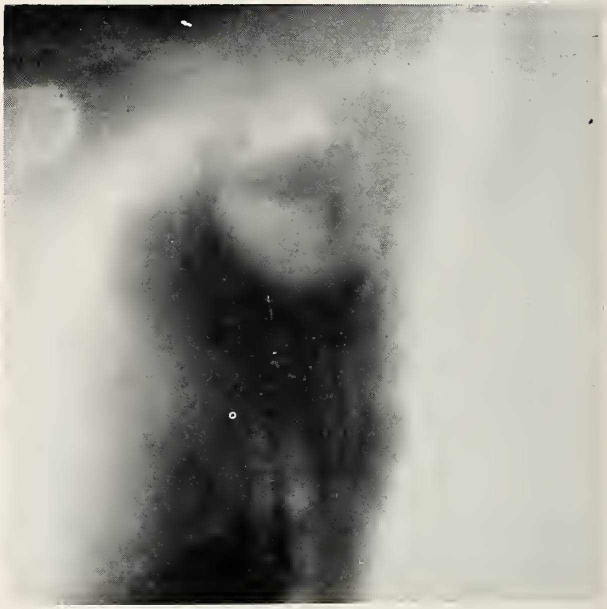
The large area of pneumonitis surrounding the margins of the cavity and the thick wall of the cavity



Case 2

Fig. 2. (1) The routine chest films demonstrates the cavity in the right upper lobe. The laminogram (2) shows the details of the cavity.

itself, suggest that this could be post-pneumonic in character or an abscess in association with a previous aspiration pneumonitis. Yet it is important that tuberculosis be first excluded. There are also additional changes in the region of the lower lobe on the right which suggest that trans-bronchial involvement with tuberculosis may have occurred. Twenty-four hours following admission, it was reported that the sputum contained acid-fast bacilli.



Case 3

Fig. 3. Laminogram demonstrates the nodular irregular wall of the cavity, especially along its lower border, in a case of cavitation associated with a bronchogenic malignancy.

The *third* case represented a 73-year-old white male who had suffered hemoptysis four months prior to his admission to the hospital. He has had a chronic cough for four years, a three months history of right sided chest pain especially marked in the region of the apex. Several films have been selected from a series of laminagrams to demonstrate the appearance of (Fig. 3) cavitation which occurs in association with bronchogenic malignancy. As the bronchogenic carcinoma enlarges, it may undergo central necrosis with cavitation. This is probably due to insufficient blood supply and possibly to associated inflammatory reaction in the malignancy. Various authors have found roentgenologic evidence of cavitation in varying percentages of cases. Dr. Liebow has noted that this may occur in 20 per cent of cases of epidermoid carcinoma. He believes that epidermoid carcinoma is the type of bronchogenic malignancy most prone to this type of degeneration. In early studies made of this case, an irregular distorted cavity in the apex of the right upper lung field, partially obscured by the margins of the overlying 1st rib, could be noted. Occasionally the radiographic studies will not demonstrate the cavity in the lesion because it is filled with neoplastic debris or retained secretions. In this patient, following therapy the cavity became more evident. While it was irregular and thick-walled in its inferior margins in early films, in the later films it became thin-walled and did not appear to be as irregular. At times the neoplastic cavitation can usually be differentiated from a pyogenic or tuberculous abscess not only by the clinical features, but by the roentgenologic findings. It is important to stress that, if the diagnosis of an abscess in an adult is in doubt, the cavitation should be considered neoplastic until it is proved otherwise.

Roentgenographic points in diagnosis are: (1) The inner-wall of the carcinomatous cavity is often nodular and irregular due to protrusion of the tumor into the cavity. This could be demonstrated in the early films in this case. (2) The outer border of a malignant cavity is apt to be sharply defined and somewhat nodular. It is usually free of surrounding pneumonitis which may characterize a pyogenic abscess. (3) The wall of a malignant cavity is usually asymmetrical in appearance. One side is often thicker and at times uneven and nodular in appearance in contrast to the more uniform wall of an abscess. This can be noted in this case. (4) A cavity of neoplastic origin may occur in any area of the lung. A pulmonary abscess is commonly found posteriorly. Neoplastic cavities are usually solitary. Tuberculous cavities are often multiple.

SUMMARY

Three cases have been demonstrated above. The first represents a cavity associated with coccidioidomycosis. In the second case, cavitation in association with tuberculosis is shown. A significant degree of secondary infection was thought to be present because of the marked surrounding pneumonic changes visualized in this case. In the third case, cavitation associated with a bronchogenic malignancy is demonstrated.

Robert M. Lowman, M.D.

Avoiding Maternal Mortality

The following case report is presented from the files of the Committee on Maternal Mortality of the Connecticut State Medical Society with the hope that the lessons which it affords will help the doctor to recognize early the patient in the pre-eclamptic state so that treatment may be begun in time to prevent a serious outcome.

Mrs. A.B., age 35, white, gravida three, para two, was admitted to the hospital, 37 weeks pregnant, comatose and convulsing. Her family reported that she had vomited for the previous 24 hours and had complained of epigastric pain. On the morning of admission she convulsed twice within 15 minutes. En route to the hospital she had two more convulsions.

Little was known of her two previous pregnancies. Both children were delivered alive at term.

Prenatal record not available at admission.

The admission examination revealed the patient to be unconscious and convulsing. Blood pressure 220/114. Pitting edema of ankles to mid thighs. Catheterized urine, four plus albumin. Immediate treatment included oxygen, 5cc. 50% Magnesium Sulfate I.M., 20 cc. of 0.4% Sodium Pentothal I.V. drip, 50 cc. of 50% Glucose I.V.

In spite of treatment this patient convulsed every eight to 30 minutes for the next five hours until she died. She never regained consciousness. No fetal heart was heard two hours after admission. The blood pressure dropped to 120/90 after initial medication; rose within an hour to 190/130, where it remained until it fell terminally.

No other laboratory data was obtained. A review of the prenatal record reveals that the patient's initial blood pressure was 120/70. Four weeks prior to admission it was 140/86. There was no albuminuria at this visit. Two weeks later the blood pressure was 152/94 with two plus albuminuria. There was no record on the chart of weight gain or edema. She was sent home on a "low salt diet, to rest." Her course to this point was considered normal.

She had one visit to the doctor's office one week later. Blood pressure reported as 144/92, with one plus albuminuria. Moderate edema was noted. One week later she was admitted to the hospital convulsing.

COMMENT

The Maternal Mortality Committee of the Connecticut State Medical Society which reviews this and similar cases, recognizes the recurrent failure to recognize the potential gravity of a rise in blood pressure in pregnancy. An elevation of blood pressure, when accompanied by albuminuria and/or clinical edema, usually also associated with significant weight gain, should immediately warn the attending physician that the patient has pre-eclampsia.

As in the preceding case, pre-eclampsia may progress rapidly to eclampsia and a fatal outcome. Pre-eclampsia requires prompt treatment, close observation and almost invariably, hospitalization. Apparent improvement may be deceptive as in the above case. A single blood pressure is not always taken accurately. An isolated urinalysis is not a true index of protein eliminated over 24 hours. Variations may occur from one to three plus over a period of several hours.

Two very important recommendations follow from the experience in this case:

(1) Early hospitalization for evaluation.

(2) Consultation.

Doctors doing obstetrics may go months or a year without seeing a case of toxemia and treatment of same may not be fresh in their minds. This is all the more reason why early consultation is recommended.

The reader's attention is directed and referred to the suggested outline for Diagnosis and Treatment of Toxemia of Pregnancy, prepared by this Committee and published in the Connecticut State Medical Journal, May 1955, page 394.

Charles H. Peckham, M.D.

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The Treatment of Hyperthyroidism

Three acceptable methods for the treatment of hyperthyroidism are now available. Since none of the three actually cures the disease or remedies the basic (and as yet unknown) cause of the increased thyroid function, the selection of the optimum form of therapy for a given patient must be made empirically on the basis of previous experience. All of the methods of treatment depend on a suppression of thyroid function either by removing a portion of the gland by surgery or irradiation with I^{131} so that the remainder cannot continue its excessive rate of secretion of thyroid hormone, or by chemically blocking the synthesis and secretion of the hormone.

Since hyperthyroidism is a relapsing and intermittent disease, we prefer the use of medical treatment, using propylthiouracil or methimazole (Tapazole) together with Lugol's solution as the basic method for control of the disease. With these medications in appropriate dosage it is possible to control almost every patient. In about half of the cases, the medical treatment can be withdrawn after 18 months or so of complete euthyroidsm. In the rest, such withdrawal may be followed by return of the disease, in which case medical treatment may be re-instituted.

Although this program necessitates visits to the physician at frequent intervals for the first few months of treatment, and about twice a year thereafter, we do not consider this a disadvantage, since patients who have had hyperthyroidism should be followed as closely as this no matter what their form of treatment. The incidence of toxic reactions has been very low in our series—less than 2%—and has never been serious enough to endanger the life of the patient, although in very rare instances skin rashes or a "serum sickness" like syndrome has been serious enough to justify changing the method of treatment. The only absolute contraindications to this form of treatment are failure of the patient to cooperate, and the rare toxic reactions noted above.

In patients more than 40 years of age, or in patients who have failed to respond to other forms of treatment, radioactive iodine is a satisfactory and simple method of therapy. This method appears, from information gathered over the past 15 years, to have no detectable toxic or late effects. The possibility that the radiation may prove to be carcinogenic after a longer period of observation cannot be ignored entirely, and it is for this reason that we do not usually use this mode of treatment in young persons. Radioactive iodine should *never* be given to children or pregnant women because of the well-known hypersusceptibility of children to the carcinogenic action of radiation. The effects of radioactive iodine therapy are uniformly successful, although it may often be necessary to give several doses of radiation to achieve complete control of the disease. This fact, coupled with the fact that the effects of radiation are not manifested for about a month after treatment make it advisable to follow I^{131} treatment with one of the thiourea derivatives in treating patients who have congestive heart failure, or other complications of hyperthyroidism which make immediate control of their disease imperative.

Subtotal thyroidectomy may be recommended occasionally, after the disease has been controlled medically, in patients who are less than 40 years of age and not suitable for medical antithyroid treatment either because of lack of cooperation or because of drug toxicity. The presence of a massive goiter does not always require surgery, unless obstructive symptoms are very severe, since radioactive iodine causes rapid and complete reduction of most goiters. The possibility of thyroid cancer in a person with hyperthyroidism cannot be taken seriously as an indication for surgery, since carcinoma is a highly unusual cause of hyperthyroidism, and the possibility of an incidental carcinoma of the thyroid in a patient with hyperthyroidism is probably no greater than for the rest of the population. Moreover, if the threat of carcinoma is to be taken seriously in such patients, it would be necessary to do a total thyroidectomy, a procedure which is not usually advocated for treatment of hyperthyroidism. In very rare instances, hyperthyroidism may result from the presence of a solitary hyperfunctioning adenoma. In this case, surgery may be the method of choice, although I^{131} or medical treatment is also effective. The chief disadvantages of surgical treatment lie in the appreciable morbidity, the serious complications of hypoparathyroidism and recurrent laryngeal nerve injury, and the risk of operative and anesthetic mortality. Although the combined risk of these complications is not high in the hands of the expert surgeon, these difficulties arise much more frequently when general surgeons attempt this difficult operation. Moreover, unlike the other methods of treatment, surgery results in a considerable number of "relapses" or "recurrences" which must then be controlled, in any case, by medical methods.

All methods of treatment carry some risk of producing hypothyroidism, but this cannot be escaped since the natural course of untreated hyperthyroidism tends in some instances to the development of myxedema.

In addition to the specific forms of treatment mentioned above, all patients with hyperthyroidism should be given a generous diet including adequate protein and vitamin intakes, in order to permit them to repair the depletion of their bodies which often accompanies this disease. Although nervousness and irritability may be important symptoms of this disease, we prefer to avoid the use of tranquillizers and sedatives if possible, because these substances confuse the clinical picture and add an additional possible source of drug toxicity. In rare cases, when very severe hyperthyroidism threatens the life of a debilitated patient, large doses of tranquillizer (such as reserpine) may be given for a few weeks until specific antithyroid medication has reduced thyroid activity. The ataraxic should then be discontinued, for the reasons cited above.

Philip K. Bondy

Pheochromocytoma

Hypertension in whatever form, whether paroxysmal, sustained or malignant can be caused by pheochromocytoma. It therefore behooves the physician when dealing with a patient who has hypertension to think of pheochromocytoma as a possible cause since removal of the tumor relieves the hypertension. If it is not discovered and removed a fatal outcome is inevitable. The disease is relatively rare having been found in only 51 of 8,665 patients at the Mayo Clinic.

Pheochromocytoma is a tumor of the chromaffin cells of the sympathetic nervous system and is usually located in or near the adrenal glands, although it may at times be found in other places along the sympathetic chain, even intrathoracically. The tumor may be multiple and even malignant, causing metastases at a distance. This points up the great difficulty at times in locating it, if its presence is suspected but it is not found in the usual location.

The tumor usually secretes large amounts of nor-epinephrine and epinephrine. Normally 20-40 ug. of nor-epinephrine is found in the urine and less than 1 ug. in the venous blood per liter. However, in patients with pheochromocytoma as much as 100 ug. appears in the urine in 24 hours. The same kind of increase of epinephrine can occur in the urine if the tumor secretes epinephrine.

If nor-epinephrine is the hormone secreted by the tumor then one finds hypertension, without tachycardia, and without augmentation of heart sounds. Oxygen consumption is not greatly increased and therefore the metabolism is not augmented nor is the cardiac output raised. Nor-epinephrine also increases coronary circulation and such patients are less likely to develop coronary insufficiency. The systolic and diastolic pressures are both raised due to a rise in the total peripheral resistance. On the contrary in essential hypertension the content of nor-epinephrine in the urine is lower than normal probably as a result of reflex inhibition of the vasomotor system. If adrenalin is the hormone secreted by the tumor then hypertension is accompanied by increased sweating, increase of basal metabolism, anxiety, occasional glycosuria, weight loss, tachycardia and augmented heart sounds. Headache is a prominent symptom.

The diagnosis of pheochromocytoma is established by (a) drug tests, (b) bioassay of catechol-amines in the urine and blood, (c) chemical assays of measuring the catechol-amines in the urine and blood.

(a) Drug Tests—

1. Histamine stimulates the discharge of catechol-amines by the tumor. Since it causes severe rise in blood pressure within a few seconds after administration it should be given to a patient only when the blood pressure is down. Histamine base .05 ug. in 0.5 ml. of normal saline is injected intravenously. The blood pressure is measured every 10-15 seconds for 10 minutes. There is always an immediate fall in the first 30 seconds after the injection which is promptly followed by a rapid rise, reaching its maximum in two minutes and declining in 10 minutes to previous level. An average rise of 100 mg. systolic and 56 mg. diastolic is diagnostic of pheochromocytoma.

2. Pentolamine (Regitin) is used if the patient is in the hypertensive phase with a blood pressure of 170 systolic or over. Pentolamine, 5 mg., is administered intravenously and the blood pressure recorded every 30 seconds. A drop of 35 mm. of mercury in the systolic and 25 mm. in the diastolic pressure is considered a positive result. It should be emphasized that false negative results have been reported even though the tests have been performed after a basal blood pressure has been established and no medication whatever administered in the previous 48 hours. It is to be noted that in rare instances fatalities have followed the use of these tests and therefore pharmacologists have worked to develop reliable methods of estimation of catechol-amines in urine and blood so that the diagnosis of pheochromocytoma can be made unequivocally with reasonable certainty.

The most convenient test for the patient as well as the most reliable is the estimation of catechol-amines in a 24 hour urine specimen collected in a bottle containing 10 c.c. of 6-normal HCL. Twenty-four hour specimens are necessary because tumors do not secrete catechol-amines continuously. Acidification is necessary to prevent inactivation of the catechol-amines. In this way urine can be stored in a refrigerator and tested at a convenient time even weeks later.

The rabbit aorta test is the bioassay method extensively performed at the present time. Strips of thoracic aorta of rabbits are suspended in a bath of Tyrode solution. Nor-epinephrine and epinephrine both produce a slow contraction of the muscle, 0.2-0.5 ml. of unfractionated urine normally causes no significant contraction. However, 0.2 ml. of urine from a person with pheochromocytoma causes a maximal contraction of aortic muscle. If this occurs Rigitin applied to the preparation abolishes the contraction. Chemical methods depend on the photo-fluorescence of reaction products of epinephrine and nor-epinephrine.

The catechol-amine estimation in blood and urine thus takes its place with other definitive tests performed in the laboratory like butyl extractable iodine determinations in the blood for diagnoses of increased or decreased secretion by the thyroid gland. By transferring the diagnosis of pheochromocytoma from clinical testing to the laboratory we are assured of a definitive answer, at the same time avoiding the false negatives and false positives as well as the dangers implicit in testing by drugs. We have here an example of excellent contact between clinical medicine and basic science with the enrichment of both.

Acute Cholecystitis—Therapy

The diagnosis of acute cholecystitis is usually based on clearly defined signs and symptoms. The sudden onset of right upper quadrant abdominal pain in a patient who has previously noted fatty food intolerance and in whom gaseous eructation is common may indicate an inflammatory process involving the gall bladder. Physical examination reveals marked upper abdominal tenderness with spasm and voluntary guarding as well as absent peristalsis. Nausea and emesis are common. Leukocytosis and low grade temperature elevation are present and a survey roentgenogram of the abdomen is usually consistent with ileus. Cholelithiasis may be evident. Repetitive attacks of a similar type usually indicates chronicity of the problem.

Such patients may be treated conservatively with nasogastric suction, bed rest, intravenous fluids, etc. and in a few days little will remain to indicate that an acute process was present. Conservatism is reasonable in the poor risk patient in general and may have a place in the therapy of the better risk patient who is apparently getting better. Surgical intervention, however, is mandatory if the clinical course is worsening—persistence of fever, increase in leukocytosis, increasing abdominal pain and tenderness. Delay should be abbreviated lest gangrene and perforation ensue. Cholecystostomy alone is sometimes indicated and can be done easily with local anesthesia if necessary. This may be a life-saving procedure in the seriously ill patient. Cholecystectomy is better, of course, but should only be done if the surgeon is absolutely certain in his identification of the cystic-common bile duct junction. If anatomical landmarks are obscured by inflammatory edema, no excisional therapy should be attempted to be certain of common bile duct integrity. Simple drainage should suffice. A second procedure is then planned when the local situation is more conducive to careful surgical dissection. A return of the blood sedimentation rate to normal in the weeks after cholecystostomy usually is consistent with a diminution in the local inflammation such that cholecystectomy may be carried out safely.

Complete roentgenographic evaluation of the gastrointestinal tract should be undertaken when the conservatively treated patient has recovered from the acute attack. This should include cholecystogram and delineation of the stomach, duodenum and colon because other gastrointestinal abnormalities may be associated with gall bladder disease. The finding of cholelithiasis indicates the need for cholecystectomy. This is especially true in patients over 60 years of age in whom another acute attack may be fraught with complications and even death. The carcinogenic properties of gallstones are not proven but much evidence indicates that malignancy of the biliary tract is closely associated with stones.

I. G.

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Dear Dr. Monahan:

The new layout for the front cover of *Connecticut Medicine* makes the journal a pleasure to look at and an efficient communications tool to use. The colors are used attractively, and the placing of the complete table-of-contents information in such an easily accessible spot will bring happy comments from reader and librarian alike.

In these days of almost machine-like methods of journal production it is a great pleasure to see a journal giving thought to the needs of its users and to its appearance.

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IN MEMORIAM

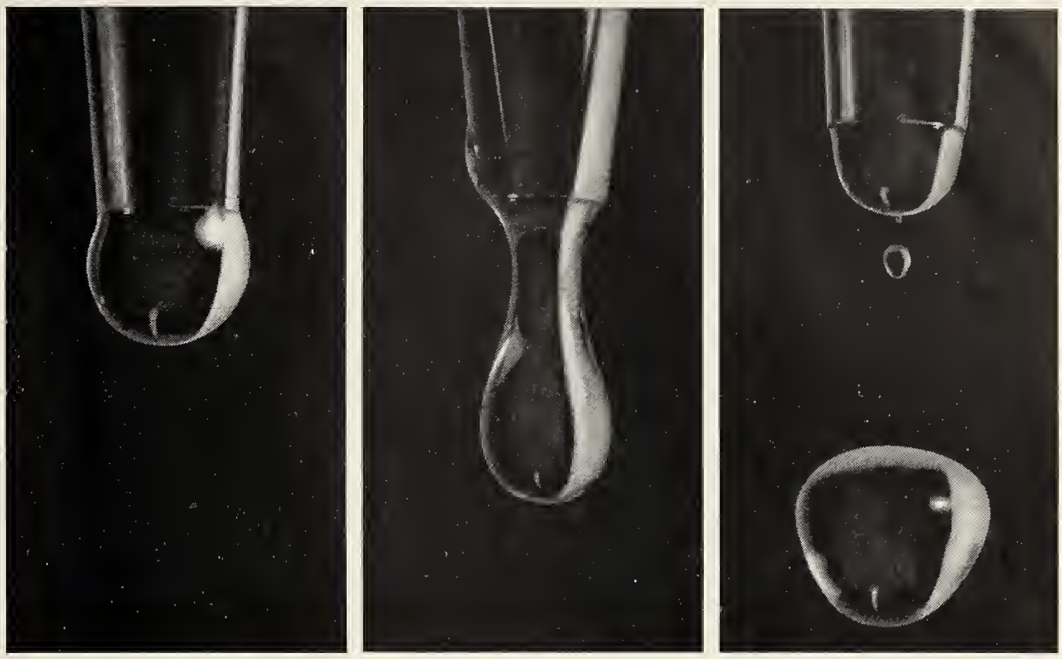
GILMER, ROY J. New Haven; Meharry Medical College, 1942; started practice in New Haven in 1946; member of medical staffs at St. Raphael's Hospital and the Grace-New Haven Community Hospital; served on the boards of the Connecticut State Tuberculosis Association and Undercliff Sanitorium; during World War II, served as a captain with the U. S. Air Force in Burma; died suddenly at St. Raphael's Hospital, August 30 of a heart ailment, aged 42.

Books Received

Reticular Formation of the Brain. Editors: Herbert H. Jasper, Montreal Neurological Institute, Lorne D. Proctor, Division of Neurology and Psychiatry, Henry Ford Hospital, Robert S. Knighton, Division of Neurosurgery, Henry Ford Hospital, William C. Noshay, Section of Neurology, Henry Ford Hospital and Russell T. Costello, Department of Medicine (Neurology), Wayne State University. $16.00. 758 Pp. Little, Brown and Company, Boston, Mass.

A Doctor Speaks His Mind. By Roger I. Lee, M.D. $3.00. 120 Pp. Little Brown and Company, Boston, Mass.

Cold Injury, Ground Type, Medical Department, United States Army. Prepared under the direction of Major General S. B. Hays, The Surgeon General, United States Army. Editor in Chief: Colonel John Boyd Coates, Jr., MC, Associate Editor, Elizabeth M. McFetridge, M.A. $6.25. 542 Pp. Office of the Surgeon General, Department of the Army, Washington, D. C., 1958.



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SEARLE

Thirty-Third Connecticut Clinical Congress

of the
Connecticut State Medical Society
and the
Yale University School of Medicine
Hotel Statler, Hartford
November 5, 1958

REGISTRATION FEE

The registration fee of $5.00 provides for admission to all sessions of the Congress. Hospital residents, interns, and medical students will be admitted without charge, if a statement of their position signed by an official of the hospital or medical school is presented at the registration desk.

MEETING PLACE

All of the sessions will be held in the Ballroom and the Boston, Buffalo, New York and Washington Rooms of the Hotel Statler.

TELEPHONE

Telephone messages will be received at Hartford, CHapel 9-5611.

LUNCHEON

Luncheon will be available in the regular dining rooms.

PARKING

There are public parking areas near the hotel and metered curb parking.

Program

9:00 Registration on mezzanine

Ballroom

9:30 Atherosclerosis—Facts and Fancies
Samuel Proger, Boston, Massachusetts
10:30 Use and Abuse of Diuretic Agents
John H. Moyer, Philadelphia, Pennsylvania

Boston Room

9:30 Steroids in Infectious Diseases
Margaret H. D. Smith, New York City
10:30 Staphylococcal Infections in the Newborn
Horace L. Hodes, New York City
11:30 Intermission

Ballroom

11:45 Clinicopathological Conference
H. M. Zimmerman, New York City
Discussant: Arnold H. Janzen, Hartford, Connecticut
1:00 Luncheon

Ballroom

2:30 Advances in Upper Gastrointestinal Surgery
Richard T. Shackelford, Baltimore, Md.
3:30 Parenteral Nutrition in Surgical Patients
William E. Abbott, Cleveland, Ohio

Boston Room

2:30 Toxemia of Pregnancy
Duncan E. Reid, Boston, Massachusetts
3:30 Use of Female Sex Hormones in Office Gynecology
Somers H. Sturgis, Boston, Massachusetts
4:30 Adjournment

The Committee on Postgraduate Education and the staff of the secretary's office have put in many hours of hard work in arranging this interesting program. Members are urged to support this function of their medical society by attending as many of the sessions as possible.

Bridgeport Chapter Academy Of General Practice

announces a postgraduate course in "Electrocardiography"

Dr. Allan Goodyer, associate professor of Medicine of Yale University and chief of the cardiologic section of Grace-New Haven Hospital, New Haven, will give this course. Not only the electrocardiographic patterns, but also the clinical aspects of the various ECG abnormalities will be covered.

The lectures will be given Monday evenings at 9:00 P.M. (*sharp*) in the Conference Room (2nd South), at St. Vincent Hospital, Bridgeport.

The topics of the lectures will be as follows:

September 22—The normal 12-lead ECG. Principles of rhythmidty, excitability, and conduction.

September 29—Identification of arrhythmias. The supra ventricular arrhythmias.

October 6—Nodal rhythm and nodal tachycardia. Ventricular arrhythmias.

October 13—A-V conduction defects.

October 20—QRS patterns and vectors. Bundlebranch blocks. Hypertrophies.

October 27—Myocardial infarction—basic patterns, acute and old.

November 3—Myocardial infarction—evolving patterns and variants.

November 10—Patterns resembling those of myocardial infarction.

November 17—Review and approach to ECG interpretation. Common problems.

November 24—Applications to test ECG's. Common pitfalls.

December 1—Applications to test ECG's. Review.

December 8—Applications to test ECG's. Review.

Each session will last about one hour and a half.

The series will be open to all physicians. Registration for this 12-week course is $25; interns and residents may register without charge.

This course will be approved for Credit Group I by the AAGP.

For further information write to Frank F. Northman, M.D., Secretary, Bpt. Chapter CAGP, 1884 Park Avenue, Bridgeport 4, Conn.

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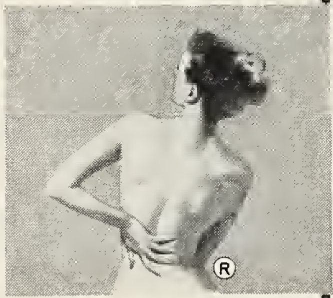

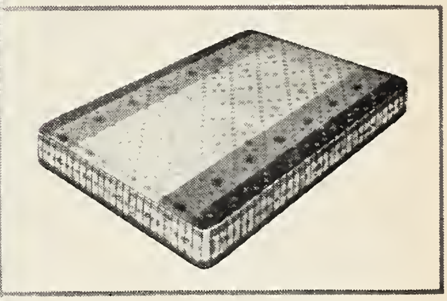

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"The Brain and Diabetes"

SIXTH ALL-DAY SYMPOSIUM OF THE CLINICAL
SOCIETY OF THE NEW YORK
DIABETES ASSOCIATION
Friday, October 10, 1958
Hunter College Playhouse Auditorium, New York, N. Y.

Titles and Invited Speakers
(Names of individuals who will open the discussion on each paper will be announced later)

MORNING

1. "Metabolism of the Brain and its Relation to Diabetes Mellitus"
   Seymour S. Kety, Chief, Laboratory of Clinical Science, National Institute of Mental Health; Professor of Physiology, Graduate School of Medicine, University of Pennsylvania
2. "The Pathological Effects of Hypoglycemia"
   Harry M. Zimmerman, Chief, Laboratory Division, Montefiore Hospital; Professor of Pathology, College of Physicians and Surgeons, Columbia University, New York
3. "The Hypothalamic Control of the Anterior Hypophysis and its Metabolic Implications"
   Roger Guillemin, Associate Professor of Physiology, Baylor University College of Medicine, Houston, Texas
4. "The Role of the Highest Integrative Functions of the Central Nervous System in Disease"
   Harold G. Wolff, Professor of Medicine (Neurology), New York Hospital-Cornell Medical Center

AFTERNOON

1. "The Role of Environment and Personality in the Management of the Difficult Patient with Diabetes Mellitus" (Panel Discussion)
   Lawrence E. Hinkle, Jr., Associate Professor of Clinical Medicine, New York Hospital-Cornell Medical Center
   Albert J. Stunkard, Associate Professor of Psychiatry, University of Pennsylvania Medical School
   Alfred E. Fischer, Assistant Clinical Professor of Pediatrics, New York University College of Medicine
   Harvey C. Knowles, Jr., Professor of Medicine; Director of Metabolic Laboratory, Cincinnati College of Medicine
2. "Clinical Experience with the Use of the Oral Hypoglycemic Agents"
   Garfield G. Duncan, Clinical Professor of Medicine, Jefferson Medical College
3. "Surgery of Segmental Vascular Disease"
   E. Stanley Crawford, Department of Surgery, Baylor University College of Medicine, Houston, Texas

This Symposium supported by grant-in-aid from Chas. Pfizer & Co., Inc. Physicians, medical students and other professional personnel interested in diabetes are cordially invited to attend this program. *Advance registration is required and may be made by calling or writing the New York Diabetes Association, 104 East 40th Street, New York 16, N. Y. Admission will be by ticket only. There is no registration fee.*

MAX ELLENBERG, M.D., *Secretary*
Clinical Society of the N. Y. Diabetes Association

Meetings

October 8—Connecticut Society for Gerontology. Semi-Annual Meeting. University of Connecticut, Storrs.

October 8-9—Connecticut State Nurses Association. Annual Meeting. Hotel Statler, Hartford.

October 14—American Cancer Society, Connecticut Division. Annual Meeting. New Haven Lawn Club, New Haven.

October 14—Connecticut Association for Mental Health. Annual Meeting. Sanford Barn, Hamden.

October 15—Medical Symposium on Arthritis and Rheumatism. Havemeyer Auditorium, Greenwich Avenue, Greenwich.

October 20-23—American Academy of Pediatrics. Annual Meeting. Palmer House, Chicago, Illinois.

October 20-24—46th National Safety Congress and Exposition. Conrad Hilton Hotel, Chicago, Illinois.

October 20-24—American Cancer Society. National Annual Meeting. Biltmore Hotel, New York City.

October 20-25—American Society for Public Administration. Northeastern Management Institute. Swampscott, Massachusetts.

October 25-31—American Heart Association. Annual Meeting. San Francisco, California.

October 27-31—86th Annual Meeting, American Public Health Association. St. Louis, Mo.

November 5—Fall Travel Meeting—Connecticut Society of American Board Surgeons, Boston City Hospital.

November 6—1958 Fall Conference of State Department of Health and Local Directors of Health. (Place to be announced.)

November 7—Golden Anniversary Mental Health Institute on Rehabilitation. Hotel Statler, Hartford.

November 10-13—American Dental Association. Annual Session. Dallas, Texas.

November 13—Connecticut Public Health Association. Annual Meeting. Newington Home & Hospital, Newington.

November 16-22—National Society for Crippled Children and Adults. Annual Convention. Dallas, Texas.

November 18-21—National Association for Mental Health. Annual Meeting. Kansas City, Mo.

November 20—CEA-Winslow Lecture. Brady Auditorium, New Haven.

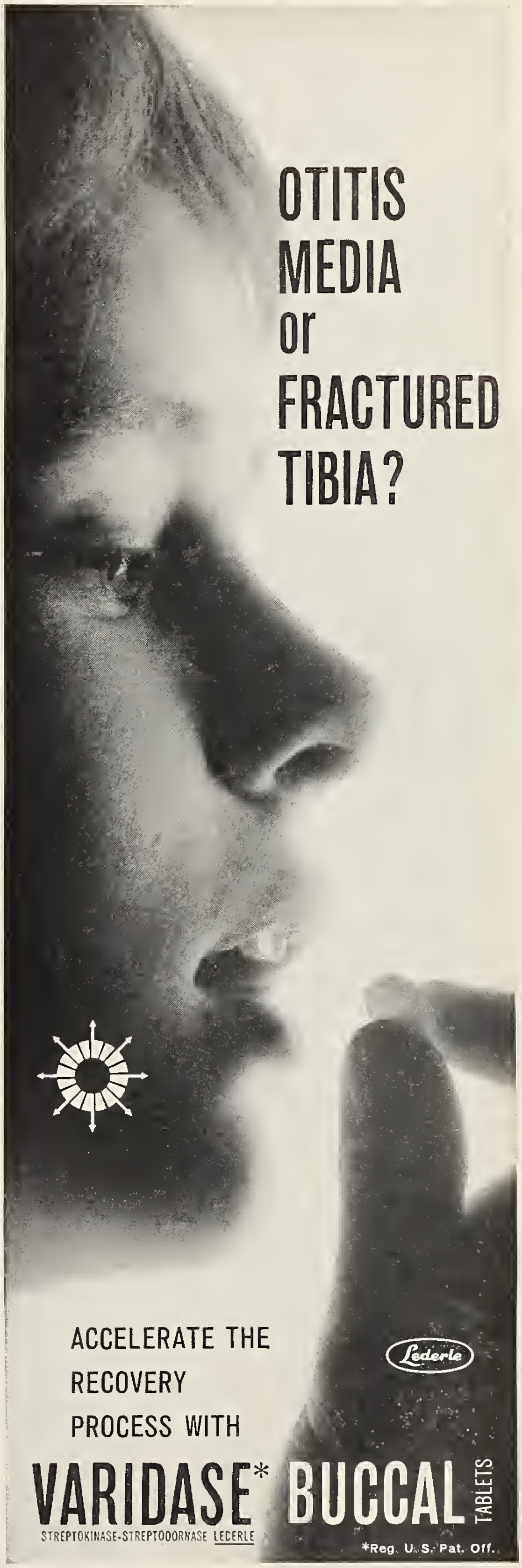
December 3—Annual Meeting, Connecticut Society of American Board Surgeons. New Haven Lawn Club.

December 11-12—National Social Welfare Assembly. Annual Meeting. Hotel Roosevelt, New York City.

SYMPOSIUM—CANCER OF COLON AND RECTUM

An invitation to attend a symposium on "Cancer of the Colon and Rectum," sponsored by the American Cancer Society in conjunction with its Annual Meeting, has been extended to Connecticut physicians. The discussions, which will be held on Monday and Tuesday, October 20-21, in the Hotel Biltmore in New York City, will have many well-known medical figures as participants. The two-day sessions will open at 9:00 A.M. and conclude at 5:00 P.M.

The topic will be probed, in all its major aspects, via four individual panels. Subjects to be analyzed by participating speakers are: "Pathogenesis and Etiology of Cancer of the Colon and Rectum"; "Diagnosis of Cancer of the Colon and Rectum"; "Meeting the Problem of Spread of Cancer of the



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DAVID M. MARCH, 242 Trumbull Street
PRESTON ZIMMERMAN, 2 American Row

NEW HAVEN

JOSEPH BILLINGS, 100 Elm Street
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TORRINGTON

JOSEPH E. NEWBURY, 41 Water Street

Colon and Rectum"; and "Treatment of Cancer of the Colon and Rectum."

The respective chairmen are: Dr. David A. Wood, University of California School of Medicine; Dr. Eugene P. Pendergrass, University of Pennsylvania School of Medicine; Dr. Warfield M. Firor, Johns Hopkins Hospital and Dr. Frederick A. Coller, University of Michigan School of Medicine. A total of 27 medical specialists will take part in the discussions.

TRUDEAU SOCIETY

There will be a meeting of the Connecticut Trudeau Society held at Gaylord Farm Sanatorium on Thursday, November 13, 1958 from 10:30 A.M.-6:00 P.M.

The program will consist of a Pembine Conference at which consecutive cases admitted to the West Haven Veterans Administration Hospital, Connecticut and Raybrook Sanatorium, New York will be presented for discussion. Diagnostic problems will be presented during the afternoon session along with discussion of surgical cases admitted to the two hospitals.

COUNTY ASSOCIATION MEETINGS

Fairfield	October 1, 1958
Hartford	September 25, 1958
Litchfield	October 7, 1958
Middlesex	October 9, 1958
New Haven	October 23, 1958
New London	October 2, 1958
Tolland	October 21, 1958
Windham	October 16, 1958

William R. Richards, M.D.
Executive Secretary

Announcements

Joseph M. Badway, M.D., announces the opening of an office for the general practice of medicine in the Armand Kelly house on Church Street, Plainfield.

Morton Bedrick, M.D., announces the removal of his office to 302 State Street, New London.

Allyn B. Dambeck, M.D., announces the opening of an office for the general practice of medicine at 62 Park Street, Rockville.

Louis E. Garston, M.D., announces the removal of his office from 14 Water Street, to 199 Main Street, Torrington.

Harvey J. Grinsell, Jr., M.D., announces the opening of an office of medical practice in pediatrics in the Professional building at 134 Main Street, Danielson.

Calvin T. Hughes, Jr., M.D., announces the opening of an office for the practice of ophthalmology at 576 Farmington Avenue, Hartford.

Gerhard T. Mack, M.D. announces the opening of an office for the general practice of medicine at 482 South Main Street, Meriden.

Charles A. Marciano, Jr., M.D., announces the opening of an office for the practice of ophthalmology at 428 Broad Street, Meriden.

Sam Pinkes, M.D., announces the opening of an office for the practice of general and pediatric surgery at 36 Woodland Street, Hartford.

Alvin Lichtman, M.D., announces the opening of an office for the practice of internal medicine at 272 West Avenue, Norwalk.

Connecticut State Medical Society

Second Vice-President

The House of Delegates of the Connecticut State Medical Society recently elected Dr. Donald J. McCrann Vice-President for the coming year. Dr. McCrann was born in New Britain, Connecticut, and received his premedical training at Holy Cross College, Worcester, Massachusetts, and is a graduate of Tufts Medical School. He served a rotating internship at St. Francis Hospital, Hartford, Connecticut, and completed a residency in pathology at St. Francis Hospital. He completed his specialty residency training in obstetrics and gynecology at Boston City Hospital. During World War II, Dr. McCrann served as Commander in the U. S. Navy from 1942 to 1946.

On September 8, 1958, Dr. McCrann celebrated his twentieth year as a practicing specialist in the field of obstetrics and gynecology in the greater Hartford area. He presently serves as a chief of obstetrics and gynecology at St. Francis Hospital and is also consulting obstetrician at McCook Hospital in Hartford, John James Memorial Hospital, and Windham Memorial Hospital. Formerly he was chairman of the executive committee at St. Francis Hospital.

Donald J. McCrann, m.d.

Dr. McCrann is an active member of the Hartford County Medical Association and the Hartford Medical Society. He has served as chairman of the ethics committee of the Hartford County Medical Association and was a member of the board of directors for several years. He is a participant of the State Society's committee on maternal mortality and the Greater Hartford Community adoption committee. Dr. McCrann is also a member of the Governoring Council of the New England Gynecological Society. He has contributed wholeheartedly, both in spirit and interest, to these organizations. He also holds membership in the New England Obstetrics and Gynecology Society, the American Committee of Maternal Welfare, the Connecticut Knife and Stork Society, and is a Diplomate of American Board of Obstetrics and Gynecology. Several articles on various obstetrical and gynecological problems have been contributed to the medical literature by Dr. McCrann.

Mrs. McCrann is an active member of the Women's Auxiliary of the Hartford County Medical Association, and has held several offices in this organization in the past. Dr. and Mrs. McCrann have two children, a daughter, Carol, who will enter college this fall, and a son, Donald, Jr., who is a senior at Kingswood School.

In Vice-President elect Dr. Donald J. McCrann, the State Medical Society has a sincere physician who will contribute in every way for continuing the progress of this organization.

James R. Cullen, m.d.
Hartford

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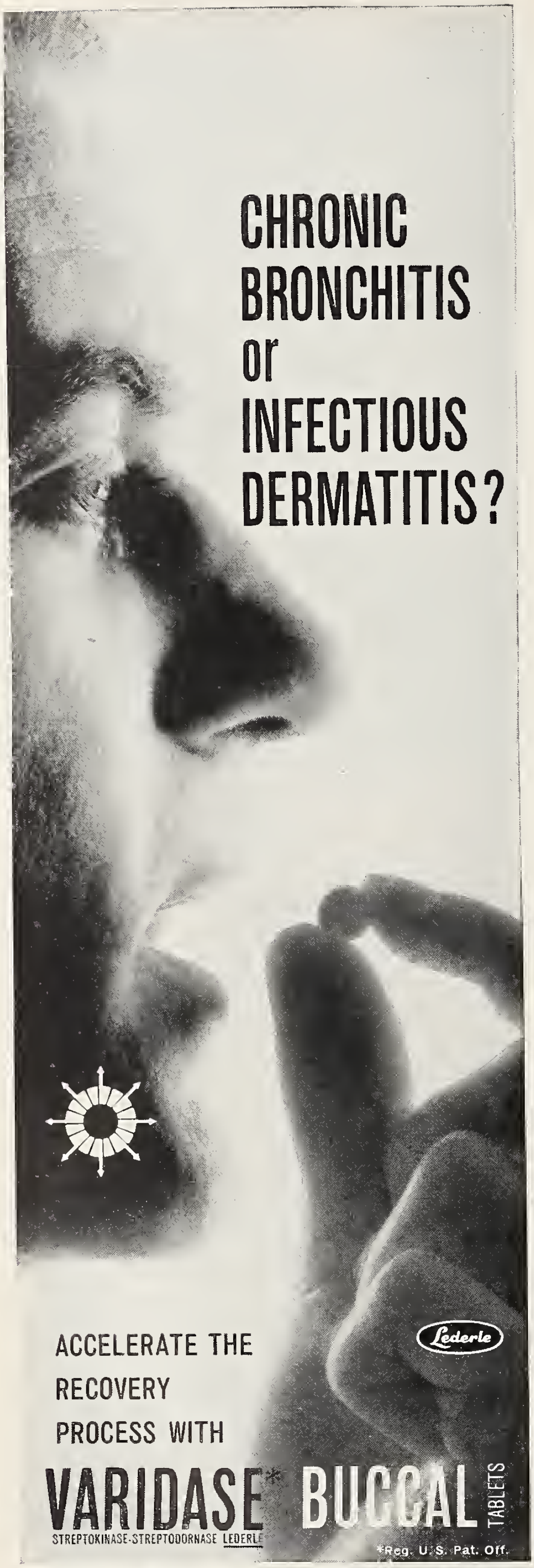

LEDERLE LABORATORIES, a Division of AMERICAN CYANAMID COMPANY,
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The Connecticut State Medical Society Special Meeting of the Council

Sunday, August 24, 1958—1:00 P.M.
160 St. Ronan Street, New Haven, Connecticut

On the recommendation of the Blue Shield Committee, the Council attended a meeting at the Society's Building at 1:00 P.M. on Sunday, August 24, 1958. The announced purpose of this meeting was that the report and recommendations of the Blue Shield Committee would be presented for joint discussion by the Board of Directors of CMS, Inc. and the Council of the Connecticut State Medical Society with a view to negotiating differences and possibly achieving a settlement of the controversy between the two organizations.

Dr. Feeney, Chairman of the Council, called the meeting to order at 1:05 P.M. Twenty members of the Council were present to represent the Society. Dr. Stubbs and Dr. Welch, Mr. Castellucci and Mr. Byran were present to represent the Blue Shield Committee. Only Mr. Judd attended to represent the Board of Directors of Connecticut Medical Service, Inc. and he announced that he was present unofficially.

It appeared that the Council was entitled to some explanation for the absence of official representatives of the CMS Board but Mr. Judd could only say that it was impossible to get the Board together on a Sunday afternoon in August. The Blue Shield Committee offered no explanation.

There was considerable informal discussion as to whether such a meeting could be productive under these circumstances but it was decided that the Council should do all in its power to cooperate with the Blue Shield Committee and it was generally agreed to continue the meeting.

Dr. Stubbs, speaking for the Blue Shield group, then announced that the CMS Board of Directors, on Thursday, August 21, 1958, had, after extended discussion, voted unanimously to approve the following motion:

> "To accept the recommendations of the Committee of Blue Shield Medical Care Plans and further that Connecticut Medical Service Inc. is ready to work out the details in conjunction with Blue Shield Medical Care Plans Committee and representatives of the Connecticut State Medical Society."

After some general remarks, Dr. Stubbs then suggested that the Council might wish to take similar action.

1. The question was then asked as to whether this was an official meeting of the Council. The Chairman ruled that it was and his decision was challenged. It was VOTED to support the ruling of the Chair.

Present in addition to the Chairman were Doctors Russell, Weise, Richards, Monahan, Carter, Gallivan, Scully, Davis, Kennedy, Buckley, Blodinger, Archambault, Ottenheimer, Eddy, Seigle, Grendon, Rentsch, Hughes and Gilman. Absent were Doctors Polito, Weld, Gens, Clarke, Schiavetti, Gardner and Starr.

The following items of business were then acted upon:

2. It was VOTED to approve the following recommendation submitted by the Blue Shield Committee with the addition of an amendment which is italicized:

   "That Article I, Paragraph 2 of the Connecticut Medical Service By-Laws be amended to provide that the Council of the State Society may at any time obtain the resignation of any future physician director, provided this action be taken for a stated cause, and that it be supported by at least 2/3 of the entire membership of the Council."

"and be it further provided that on or before September 1, 1958, the Board of Directors of Connecticut Medical Service, Inc. incorporate such action in their by-laws and on or before September 1, 1958, the Board of Connecticut Medical Service, Inc. submit to the Chairman of the Council of the Connecticut State Medical Society a certified copy of the Connecticut Medical Service corporate records of such restoration."

3. It was VOTED that the Council express to the Blue Shield Committee for transmittal to the Board of Directors of Connecticut Medical Service, Inc. that it is the Council"s opinion that the principle embodied in their recommendations which reads: "That stated terms of office be established for both physician and lay members of the Board of Directors of Connecticut Medical Service, Inc. on a staggered basis to maintain continuity and at the same time to provide for re-election or replacement of a portion of the Board each year" coupled with the by-law change outlined in the immediately previous action of the Council in item 2. is in consonance with the intent of the House of Delegates' action of July 22, 1958 with respect to the intent of the by-law change and that this be accepted if an agreement is reached with the Board of Directors of CMS that the terms of office of the present six medical members of the Board shall expire on a staggered basis before February, 1960.

4. It was VOTED to approve the recommendation of the Blue Shield committee relating to the Professional Policy Committee, revised as follows:

"That the formation and functions of the Professional Policy committee, as set forth in the present by-laws, be thoroughly revised for the purpose of precluding the introduction by the Board of Connecticut Medical Service, Inc. of major changes in policy without full knowledge, consideration and approval of the physicians of Connecticut through action by their county associations and the Connecticut State Medical Society."

5. It was VOTED to postpone action on the following motion and amendment:

MOTION: It is moved that the Council of the Connecticut State Medical Society, through its Chairman, recommend to the House of Delegates at the earliest opportunity that that portion of the report of 1948 which was changed by action of the House of Delegates on March 27, 1958 be reversed from "not more than 50%" to "at least 50%" of the population of Connecticut.

Amendment: That this action be presented to the House of Delegates at the Annual Meeting of April, 1960.

Dr. Henry Archambault of New London wished the record to show that he opposed the amendment and the postponement of action on both the amendment and the motion.

Dr. Stubbs felt that the immediately preceding action left the Blue Shield Committee in some doubt as to the intent of the Council in what he called "this most important matter." He was informed that the Council could not now act officially on this matter of future recommendation to the House of Delegates but to give reassurance to the Blue Shield Committee, the Council VOTED to become a

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reference committee of the whole and conducted an informal poll of the members present as to whether they would personally support such a recommendation to the House of Delegates.

Dr. Feeney reported to the Blue Shield group that despite three members voicing personal opposition to such a recommendation, in the interest of the State Medical Society, support would be unanimous.

6. It was VOTED "that the Council is in general sympathy with the report and recommendations of the Committee of Blue Shield Medical Care Plans as modified by the actions of the Council on August 24, 1958 and is in favor of further meetings with representatives of the Board of Directors of Connecticut Medical Service, Inc. and/or the Blue Shield mediators to carry out further negotiations along these lines."

A copy of the complete Blue Shield "Report and Recommendations to the Connecticut State Medical Society and Connecticut Medical Service" is a part of these minutes.

Dr. Feeney expressed the Council's thanks to the Blue Shield Committee for its efforts in attempting to resolve this controversy.

The next meeting of the Council will be held on Thursday, September 18, 1958.

The meeting adjourned at 4:45 P.M. without establishing arrangements for any future meeting and with no method proposed for taking final action on the matters discussed.

Thomas Feeney, M.D.
Chairman of the Council.
William Richards, M.D.
Executive Secretary.

Report and Recommendations to the Connecticut State Medical Society and Connecticut Medical Service

At the request of the Connecticut State Medical Society and Connecticut Medical Service, the National Association of Blue Shield Plans authorized appointment of a committee to study certain points of controversy existing between the medical society of Connecticut and Connecticut Medical Service.

The committee appointed for this purpose has to its best ability and within the limits of time and opportunity available made a thorough and objective appraisal of the problems presented to it for consideration and has conferred with both the Connecticut State Medical Society and Connecticut Medical Service.

This report sets forth certain recommendations which, in the judgment of this committee, represent the steps that must be taken to resolve the current difficulties adversely affecting the relationships between the Connecticut Medical Society and Connecticut Medical Service.

It is important at the outset to emphasize that under the guidance of the medical society, Connecticut Medical Service was organized on the very principles that have become identified as basic in Blue Shield. Connecticut Medical Service is, for this reason, recognized nationally as one of the outstanding Blue Shield Plans in terms of both past accomplishments and future potential. Nonetheless, it has been noted by this committee that communications between the C.M.S. and the medical society can be improved. Thus, it must be pointed out that the primary basis for a lasting solution to the present difficulties must recognize the absolute necessity of establishing and maintaining effective communication between C.M.S., the Connecticut State Medical Society and its participating physicians. From effective communication spring both the understanding and sincerity essential to the creation of the good will required to assure progress as well as the solution of current problems.

Although the resolution adopted by the House of Delegates of the Connecticut Medical Society on July 22, 1958 calling for immediate consideration of a change in C.M.S. by-laws governing the Board structure has been identified as the principal issue in dispute, this committee is moved to observe that another factor must be identified as equally important in any attempt to resolve completely the present controversy and assure continued adherence to the concepts on which C.M.S. was originally founded. This has reference to the original principle set forth by the medical society providing that service benefits should be available to *at least 50 per cent* of the population served by the Plan. This principle was changed by an action of the House of Delegates of the state society in March, 1958, at which time it was specified that service benefits shall be available to *not more than 50 per cent* of the population.

(Continued on Page 748)

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why California ℞ table wine in the low-sodium diet?

TABLE I[1]

	No. specimens examined	Sodium (mg./100 cc.) Mean
Musts (crushed white grapes)	9	1.63
California Red Table Wines	82	5.56
California White Table Wines	73	5.44
California Dessert Wines	104	7.10

*D*ietary restriction of sodium has become a standard procedure in the control of edema associated with cirrhosis of the liver, congestive heart failure, certain kidney ailments, toxemias of pregnancy, during digitalization and in drug-induced diuresis.

Unfortunately sodium-restricted diets tend to be flat, tasteless, monotonous, leading toward failure of dietary cooperation by the patient.

In such cases, California table wine may be employed safely as well as to advantage in making the food more palatable without adding significant amounts of sodium .

In a recent study[1] it was shown that California table wines are remarkably low in sodium content—less than 10 mg. per 100 cc. (3½ ounce glass).

Since recent research [2,3,4] has also shown that wine stimulates a lagging appetite and aids digestion while adding a sparkle to any meal—why not encourage the moderate use of wine by the patient on a restricted dietary, as well as by the sufferer from anorexia, the post-surgical, convalescent or geriatric patient?

May we send you a copy of "Uses of Wine in Medical Practice"? A copy is available to you, at no expense, by writing to: Wine Advisory Board, 717 Market Street, San Francisco 3, California.

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This committee believes that altering the original principle governing the availability of service benefits, is an action contrary to the public interest, since over one million Connecticut citizens have been enrolled with the understanding that the aim of C.M.S. was to provide a program whereby *at least 50 per cent* of the citizens would have available a service program.

If the change in this policy is permitted to stand, it appears that any of the Board of Directors, present or future, would be in violation of the presently declared policy of the medical society, because it is a matter of record that under present C.M.S. contracts, 52 per cent of the subscriber claims paid are eligible for service benefits and more than this number are actually receiving them.

Therefore, unless this inconsistency is promptly rectified, this committee can see no possibility of bringing about the desired relationship between the society and the Plan through new society representatives on the C.M.S. Board. Neither would there be any opportunity for the doctors of the state to continue to provide through C.M.S. a service program compatible with community interest and present economic conditions.

This committee understands that representatives of the Connecticut State Medical Society with whom it met recognize this as an important problem and that the Council will be requested to recommend to and urge the House of Delegates to restore the original principle governing the availability of service benefits.

Therefore, this committee RECOMMENDS:

That this action be taken at the earliest possible opportunity and that the House of Delegates should affirm the confidence of Connecticut physicians in Blue Shield by this restoration of basic policy.

With reference to the change in C.M.S. by-laws made in 1955, there is general agreement that a change is indicated.

This committee RECOMMENDS:

1. *That stated terms of office be established for both physician and lay members of the Board of Directors of C.M.S. on a staggered basis to maintain continuity and at the same time to provide for re-election or replacement of a portion of the Board each year.*
2. *That Article I, paragraph 2 of C.M.S. by-laws be amended to provide that the Council of the State Society may at any time obtain the resignation of any future physician director, provided this action be taken for a stated cause, and that it be supported by at least 2/3 of the entire membership of the Council.*

We believe that in the interest of the public and of good business practice, *any replacements of the present directors* should take place on a staggered schedule providing adequate intervals of time to maintain continuity of board membership, and that the details of such orderly replacements be negotiated after acceptance of the foregoing principles.

In the important matter of maintaining the proper relations of the Plan to its Sponsoring Society with reference to any major changes of the present contracts involving medical policies,

WE RECOMMEND:

That the functions of the Professional Policy Committee, as set forth in the present by-laws, be thoroughly implemented by the Plan and utilized by the Society. This would preclude the introduction of major changes without the full knowledge and consideration of the participating physicians through its duly elected representatives in the State Society.

Although there are other considerations to be resolved, we feel that if both parties will agree to these basic recommendations in good faith, and continue their discussions in the same manner, a proper relationship can be achieved and both parties will be reunited in the common goal of serving the public.

We believe that these recommendations are fair and in the best interests of the public, physicians, and the Plan. We therefore call upon the Connecticut State Medical Society and Connecticut Medical Service to accept them.

We wish to make it clear that any publication of this statement, in whole or in part, or of any of our recommendations made to date, without our specific consent, would be considered by our committee as a violation of good faith.

Donald Stubbs, M.D., *Chairman*
Norman A. Welch, M.D.
John W. Castellucci

CLASSIFIED ADVERTISING

FOR SALE—Hamilton medical examination room suite, $325.00; Detecto scale, $48.00; Detecto baby scale, $36.00; bargains in new and refurbished examination tables, instrument and treatment cabinets, utility tables, stools, lamps; stainless double basin solution stand, $20.00; four section hard screen, $15.00; Sklar cabinet, suction and pressure, $75.00; Gomco suction and pressure, $75.00; new shortwave, $195.00. Beverly 7-3145, Harry Sacker, 188 Grove Street, Meriden, Connecticut.

FOR SALE—New Castle sterilizer, $60.00; rebuilt sterilizers, $30.00 up; automatic autoclaves, $90.00; Tycos aneroid, $34.00; Baumonometers, $20.00 up; medical bag, $15.00; microscopes, $75.00 up; Otiscope and ophthalmoscope sets, $40.00 up; fluoroscope, excellent condition, $350.00; muscle stimulators, $85.00; tremendous savings, hundreds of items. Beverly 7-3145, Harry Sacker, 188 Grove Street, Meriden, Connecticut.

FOR SALE—Fischer Fluoroscope. Type DS-60, 40 AMP, 220 Volts. May be adapted for six foot chest film. In good working condition. Best offer of over $100. accepted. Developing tank, film cassettes, and film hangers included in price. Write Dr. M.C. c/o Connecticut Medicine, 160 St. Ronan Street, New Haven 11, Conn.

Board certified radiologist, veteran, married, age 38; desires association with established radiologist or small group of radiologists. Write: G. T. Grimmer, M.D., 202 Oliver Street, Charles City, Iowa.

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Inspection and Palpation of Pulsations on the Front of the Chest

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For many years physicians depended on their eyes and ears to unravel the mysteries of the body. Through necessity some physicians with a keen sense of curiosity learned to examine the surface of the chest and to make rather remarkable deductions about the status of the heart and lungs. The teachings of these physicians have been handed down, though modified, ever since. During the last two decades new and wonderful recording equipment has revived the interest in careful physical examination, since scrutiny of the records has shown that there is more to be found than was suspected. We must become curious again—this time, influenced by the records obtained from the recording equipment—and try to extract all the information possible from simple bedside examinations, using our eyes, hands, and ears. This should be done before going on to the more time-consuming, expensive, and occasionally painful types of examination. The latter types of examinations are frequently needed before a complete appraisal of the problem can be made; but it is wrong, in our opinion, to utilize the more complicated types of examination before the physical examination is complete. For example, it is distressing to hear a student state that he must know the results of cardiac catheterization before giving an opinion in a case of suspected congenital heart disease, and to discover that he has overlooked many diagnostic clues when performing the physical examination.

It is pleasing to observe that careful physical examination is receiving attention again. Accordingly, it seems fitting to emphasize the information that can be obtained by looking at and feeling the front of the chest.[1]

AREAS OF THE CHEST TO BE EXAMINED

As with everything else in the field of medicine, one finds only what one looks for. Therefore, it is necessary to specifically examine five areas of the front of the chest.

Area 1. The Sternoclavicular Joints.—When one sees or feels a pulsation in the right or left sternoclavicular joint, one should consider an abnormality of the ascending aorta or the arch of the aorta.

Area 2. The Pulmonary Artery Area.—The second and third intercostal spaces adjacent to the sternum are considered to be the region of the pulmonary artery. Pulsation in this area can be the result of pulmonary hypertension or increased pulmonary arterial flow.

Area 3. The Anterior Precordium.—The lower portion of the sternum and the adjacent precordium on the left is called the anterior precordium. This area may pulsate abnormally when there is right ventricular hypertrophy or myocardial infarction.

Area 4. The Apical Area.—The apical impulse is located in this area. This impulse may become abnormal when there is left ventricular hypertrophy or myocardial infarction.

Reprinted from American Heart Journal, August, 1958.

Area 5. The Epigastric Area.—Pulsations in the epigastric area are due either to right ventricular hypertrophy in patients with emphysema, aortic pulsations, or liver pulsations.

METHOD OF EXAMINATION

The following suggestions dealing with the method of examination are very simple but, nevertheless, important. (1) Inspect and feel the anterior portion of the chest while the patient is lying down in a relaxed position. (2) A "warmup" period is needed for inspection and palpation. Everyone is familiar with the delay encountered when trying to feel the dorsalis pedis artery. A similar delay occurs when one examines the anterior surface of the chest. Several minutes of looking and feeling may be required before one sees or feels an abnormal pulsation. (3) The apical impulse may seem to be small when it is first located. After searching the surrounding area, one may note that the impulse extends over a larger area than was first found. At times, one or two ribs may overlie a large area of pulsation, causing the examiner to misinterpret the size of the impulse. (4) A flashlight is useful in identifying areas of pulsation. The rays should shine tangentially from the right across the anterior and left lateral surfaces of the chest in order to see pulsations with maximum efficiency. (5) The most important factor is to become sufficiently interested in the examination to specifically search for pulsations.

Examination of Area 1. (The Sternoclavicular Joints).—Pulsations of the right or left sternoclavicular joint usually indicate that something is wrong with the aorta. The right or left clavicular joint may pulsate when there is an aneurysm of the aorta of sufficient size to lie adjacent to the sternoclavicular area. Logue and Sikes[2] pointed out that a dissecting aneurysm of the aorta will occasionally cause pulsation of the right or left sternoclavicular joint. Accordingly, it is wise to search for such an important diagnostic clue in patients with chest pain. A right-sided aortic arch is usually higher than the normal left-sided arch and can cause pulsation of the right sternoclavicular joint.

Examination of Area 2. (The Pulmonary Artery Area.)—A prominent pulsation in the pulmonary area usually means that the pulmonary artery is dilated from either an elevated pressure or an increased pulmonary blood flow, or a combination of both. The pulmonary artery is likely to be dilated when there is mitral stenosis, interatrial septal defect, interventricular septal defect, primary pulmonary arteriolar disease, or patent ductus arteriosus. Slight pulsation of this particular area may occur also in healthy, young, normal subjects.

Examination of Area 3. (The Anterior Precordium.)—The anterior precordium is considered to be the lower portion of the sternum and the adjacent precordium on the left. The portions of the heart that lie beneath this region and cause pulsation of the area are the right ventricle and interventricular septum. The following four conditions should be considered when examining the anterior precordium.

1. Normally very little pulsation can be seen or felt in the area of the anterior precordium in the quiet, normal person.

2. When there is an increased cardiac output such as occurs in anxiety, anemia, fever, thyrotoxicosis, peripheral arteriovenous fistula, etc., a pulsation can be detected in the anterior precordial region when the heart is normal, as well as when it is enlarged. This type of pulsation is not localized and not sustained. The pulsation can be felt only during a brief portion of the cardiac cycle.

3. When there is right ventricular hypertrophy, the lower portion of the sternum and the area of the chest to the left of the sternum may actually "lift" the palpating hand. This type of pulsation is said to be sustained. The cause of this pulsation is not completely understood. It is believed that the right ventricle swings anteriorly and to the right under normal conditions. When the right ventricle is thick and enlarged, this type of movement becomes exaggerated to such a degree that the anterior precordium pulsates abnormally. When there is right ventricular hypertrophy due to congenital heart disease, the anterior precordium, including the sternum, may actually bulge anteriorly, while acquired right ventricular hypertrophy is less likely to cause such an anatomic deformity of the bony cage. Pulsation of the anterior precordium is not likely to occur in patients with advanced pulmonary emphysema, even when there is right ventricular hypertrophy, since the anterior portion of the chest is separated from the anterior portion of the heart.

4. A prominent pulsation can be detected occasionally in the anterior precordial region following myocardial infarction. The exact cause of this pulsation is not known. It is likely, however, that the pulsation represents a "physiologic aneurysm." Two facts should be kept in mind—one is that the septum is an anterior structure, and the other is that many infarcts involve the septum. It seems reasonable to expect such a pulsation after anterior myocardial infarction only. However, no studies are available which allow one to state with certainty that it never occurs after inferior or posterior infarction. It is possible that even a posterior septal infarction might weaken the septum in such a manner as to allow an anterior pulsation. The abnormal

pulsations that follow myocardial infarction are now being studied and will be the subject of a later report.

Examination of Area 4. (The Apical Area).—The exact cause of apical impulse in the normal subject is not known. Harrison[2] and others have suggested that the recoil of the right ventricle, plus a physiologic normal aneurysm of the left ventricle, may result in the pulsation. The latter—the physiologic normal aneurysm—is thought to occurs because the base of the left ventricle is thicker than the apex of the left ventricle. Accordingly, when cardiac contraction occurs, the apex of the heart balloons out to some degree. There is much to learn about the apical impulse, but the following four things must not be forgotten.

1. The normal subject may or may not have a visible or palpable apical impulse. When an apical impulse is found, it is necessary to determine the size, the location, and the duration of the pulsation. Normally, the apical impulse is small and localized, affecting an area smaller in size than a half-dollar piece, is located near the left mid-clavicular line, and has a brief duration. The ability to judge the duration of a pulsation requires practice, but it is one of the most important parts of the examination. The apical impulse tends to remain small and merely taps the finger even when the normal heart is displaced laterally.

2. When there is left ventricular hypertrophy, the apical impulse may cover an area larger in size than a half-dollar piece but may be inside, near, or outside the left mid-clavicular line. The apical impulse tends to be sustained. The physiologic normal aneurysm of the left ventricle becomes exaggerated. *The forceful, sustained lifting of the fingers is the most diagnostic sign of left ventricular hypertrophy.* This clue to left ventricular hypertrophy may be present when the heart size is normal to x-ray examination. We agree with Harrison[1] that percussion is a poor method of examination of the heart and that, at best, it can be termed a crude way to determine heart size. Inspection and palpation of the apical impulse—as well as of other precordial pulsations—are more reliable than percussion and, also, yield additional information. Percussion enables one to determine the location of the borders of cardiac dullness. Inspection and palpation allow one to determine the location, the size, and the duration of the apical impulse—three things to study rather than one.

The impulse that is characteristic of left ventricular hypertrophy is not ordinarily seen when there is right ventricular hypertrophy; however, we have had cases in which the right ventricular impulse was felt laterally and suggested left ventricular hypertrophy. Despite the occasional exception, tight mitral stenosis can usually be excluded when one finds the typical left ventricular hypertrophy type of apical impulse. At times, the combination of right and left ventricular hypertrophy can be suspected by inspection and palpation. We believe that more errors will be made when judging the presence of combined ventricular hypertrophy than when determining pure right or pure left ventricular hypertrophy, although some information may be obtained under such circumstances.

3. Abnormal pulsations in the apical region may be the result of anterior myocardial infarction. Vakil[3] found abnormal pulsations in 5.7 per cent of patients with myocardial infarction and described three types of abnormality: (a) a single precordial pulsation, 2 to 6 cm. in diameter, internal to and above where the apical impulse should be, (b) a single wide area of pulsation, 6 to 7 cm. in diameter, caused by the fusion of the abnormal pulsation with a palpable apical beat, and (c) two distinct areas of pulsation—"a double impulse"—due to the apical beat and the pulsation from a myocardial infarction. In the majority of cases the abnormal pulsations just listed are transitory, lasting from 4 to 24 days. Occasionally, a true anatomic ventricular aneurysm results from myocardial infarction and the abnormal pulsation may become permanent.

4. A visible and palpable pulsation can be detected at the apex in some patients with a ventricular diastolic gallop (protodiastolic gallop). In fact, the gallop pulsation occasionally can be seen and felt more readily than the gallop sound can be heard. This sound, occurring after the second sound, at the end of the first third of diastole, implies myocardial weakness.

Examination of Area 5. (The Epigastric Area).—Pulsations in the epigastric region may be produced by the heart or the aorta. When there is considerable pulmonary emphysema, then the right ventricular pulsations may be felt in the epigastrium. A useful method of examination is to "slide" the fingers under the rib cage in the epigastric region; the right ventricular impulse will strike the end of the fingers, while the pulsations of the abdominal aorta will strike the palmar surface of the fingers.

A WARD STUDY OF FIFTY PATIENTS

The anterior and lateral surfaces of the chest were inspected and palpated for pulsations in 50 patients at the Grady Memorial Hospital. Whether heart disease was present in the majority of patients, and if so, of what type, was not known by us at the time of the examination. Since heart disease is one of the most frequent reasons for admitting patients to Grady Hospital, we expected to find considerable heart disease in the group. The only other requirement for this study was that the patients should have an electrocardiogram and an x-ray of the chest, so that cardiac hypertrophy could be studied by these techniques. This requirement would also weigh the data for more heart disease. Two observers compared their impressions and agreed closely except in two cases. No effort was made to compare the results of percussion with the results of inspection and palpation, for the reason that it soon became obvious that we could not perform an impartial examination using the method of percussion after having performed careful inspection and palpation. We soon learned that percussion was a cruder form of examination and yielded much less information than did inspection and palpation. During the study it was pleasing to note that the interest of the house staff increased in regard to the inspection and palpation of pulsations on the anterior surface of the chest.

The study involved too few patients to draw any statistical information, but the following points were of interest.

An impulse was felt in 44 of 50 patients. Although most cases with left ventricular hypertrophy had the apical impulse located beyond the mid-clavicular line, 2 cases of left ventricular hypertrophy had abnormal apical impulses at or inside the mid-clavicular line. Both of these had left ventricular hypertrophy with hearts normal in size by x-ray, but with definitely abnormal electrocardiograms. There were 3 patients with apical impulses beyond the mid-clavicular line who did not have evidence of left ventricular hypertrophy by x-ray or electrocardiogram. There was an increased size of the apical impulse in the majority of patients with left ventricular hypertrophy, and there was only one proved case that did not have an increased size. Accordingly, if an apical impulse definitely covers an area larger in size than a half-dollar piece, left ventricular hypertrophy is likely to be present. The apical impulse was sustained in the majority of cases of left ventricular hypertrophy. Since only one proved cases of left ventricular hypertrophy did not have a sustained impulse, it is our distinct impression that a sustained impulse is probably the most reliable indication of left ventricular hypertrophy. Left ventricular hypertrophy was diagnosed by inspection and palpation of the precordium in 16 to 50 patients. Eleven of these cases had evidence of left ventricular hypertrophy on the electrocardiogram, 2 had right and left ventricular hypertrophy by x-ray with normal electrocardiograms, and 3 had recent myocardial infarction. In 4 cases the observers were not willing to state that the apical impulse was definitely abnormal or definitely normal. Two of the cases proved to have diseases that would cause combined ventricular hypertrophy.

Five cases were diagnosed as having right ventricular hypertrophy on the basis of inspection and palpation of the precordium. All 5 cases had evidence for right ventricular hypertrophy, and had electrocardiogram or x-ray confirmation of right ventricular hypertrophy. In 2 cases the observers were unwilling to state that the anterior precordial pulsations were definitely abnormal or definitely normal. When studied by electrocardiogram and x-ray, both of these cases proved to have left ventricular hypertrophy due to hypertension. This perhaps emphasizes that the most common cause of right ventricular hypertrophy is left ventricular heart failure.

Six of 10 cases of recent myocardial infarction showed abnormal pulsations on physical examination. Three of these had associated left ventricular hypertrophy.

CONCLUSION

On the basis of our "blind" study of 50 ward patients it is our conclusion that careful inspection and palpation of the anterior chest enables one to diagnose left ventricular hypertrophy and right ventricular hypertrophy in a surprisingly large percentage of patients. Myocardial infarction also causes abnormal precordial pulsations, and these should be looked for more frequently. In efforts to determine the presence of ventricular hypertrophy it is necessary to inspect and palpate the anterior precordium in addition to obtaining an electrocardiogram and a chest x-ray.

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Early Events in the Development of Inhalation Therapy*

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Of the multiplicity of things that the human body requires for existence, more than all else it thirsts for the oxygen molecule. So utterly dependent are we on this element that deprivation will cause unconsciousness in sixty seconds and death in less than ten minutes.

Air was considered by the ancient world to be an indivisible entity and hence one of the four chief elements. The more palpable other three were earth, fire, and water. Apparently the biblical writers suspected its necessity since the Bible first records the instance of artificial respiration (mouth to mouth) when Elisha breathes into the son of the Shunammite woman and restores him to life.[1]

Aristotle enacted the first recorded experiment in respiratory physiology in 350 B.C. in placing animals in airtight boxes and observing their demise panting and gasping for breath. Unfortunately, this first great naturalist drew the incorrect conclusion, stating that the animals' death was due to inability to cool themselves.[2]

William Harvey publicly described the circulation of the blood in 1628.[3] Prior to this time men held the hypothesis of Galen to be correct. This stated that the object of respiration was to cool the blood which could become over heated from the heat generated by the heart itself.[4] The purpose of chest movement was to introduce air for generating vital spirits by the pulmonary vein and to rid the body of the heart's smoky vapors by the same channel.[5] Allbutt sums it up, "Before Harvey's time respiration was regarded not as a means of combustion, but of refrigeration."[6] Two thousand years had passed without correction of Aristotle's original erroneous conclusion.

In 1666, Robert Boyle, famous for the law of reciprocal relationship of gas volume and pressure, pondered a revolutionary idea which stated, "Our atmosphere, in my opinion, consists not only of pure aether . . . but of numberless exhalations of the terraqueous globe . . . the difficulty we find in keeping flame and fire alive . . . without air, renders it suspicious that there may be dispersed through the rest of the atmosphere some odd substance, either of solar, astral, or other foreign nature; on account whereof the air is so necessary to flame."[7]

Boyle clearly anticipated the presence of oxygen, but four years later in 1670 John Mayow (1643-1679) showed that the dark blood in the veins became bright scarlet in the arteries. He guessed that it occurred by the taking up of an ingredient "of a precious nature" in the lungs. He further guessed that it was a constituent of nitre (KNO_3) and called this material "igneo-aerial particles" or the "nitro-aerial spirit of air."[5,8]

Not the least, however, Mayow had grasped the idea that the object of breathing was to cause interchange between the air and the blood, the former giving up its nitro-aerial spirit (or oxygen) and taking away the vapors (carbon dioxide) engendered by the blood.

Undoubtedly Mayow was close to the discovery of oxygen, but the progressive mechanistic and chemical tendencies of the 18th century were opposed by George Ernst Stahl (1660-1734), Professor of Pathology, Dietetics, Physiology, Botany, and Pharmacology at Halle, who was a rigid, blunt, fervent believer in his own correctness.[9] It was Stahl's erroneous phlogiston theory of combustion (i.e. burning matter is dephlogisticated) that retarded chemistry for a century, even though Mayow had already shown that some substances gained weight when they were burned.

The phlogiston theory which was introduced in the 18th century by Johan Becker and advanced by Stahl was originated by the 13th century Arabian, Jabir, who simply stated that combustible bodies lost something when they were burned. Stahl's phlogiston, or the material that was lost, was not fire itself, but the material of fire. Metals were considered in the 18th century to be composed of a calx (which was different for each metal) combined with phlogiston (the same in all metals, and common to all combustibles). When the metal was burned and phlogiston given off, the calx was left. However, if charcoal or a candle were burned and the phlogiston given off, the residue was small, because the wax and charcoal consisted mainly of phlogiston, or the material of fire. If the calx was heated with charcoal, but out of contact with air, the phlogiston of the charcoal recombined with the calx and the metal was regenerated.

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Stahl's theory was widely accepted, because it not only gave expression to the fact that during combustion something emitted from the burning substance, but that it also could be restored.[10]

Certainly the truth was in the grasp of Joseph Priestley on August 1, 1774 when he concentrated the sun's rays through his new strong burning lens on the red oxide of mercury which was in a glass vessel over metalic mercury. The resultant gas (oxygen) he called dephlogisticated air. The subsequent experiments that he performed with the new gas led him to the realization that mice could live in it and that it made his own breathing light and easy. But Priestley died without realizing he had discovered oxygen or understanding the significance of the find. As a colleague of Joseph Black he viewed respiration simply as the "phlogistication of dephlogisticated air," and that since oxygen had been discovered during a heating process the phlogiston necessary for combustion had been removed.[11]

Carl Scheele's experiments in 1773 led him to the belief that various substances when burned diminished the volume of air in which they were burned. He also found that the residual air was unexpectedly lighter than normal and was unable to support combustion. He felt that the portion of the air concerned with the burning had disappeared (even through the walls of a glass jar!). He finally succeeded in liberating oxygen from HNO_3 and absorbing the nitrogenous oxides on lime. Since he did not publish until 1777, he shares the discovery of oxygen with Priestley, although he also did not appreciate the significance of the find.[10]

John Hunter in 1776, having heard of Priestley's discovery, suggested that this substance might be more efficacious in artificial respiration by the bellows method than ordinary air.[12] Hunter thus predicted oxygen therapy much in the same fashion as Humphrey Davy was to anticipate nitrous oxide anesthesia a quarter of a century later.

Priestley personally stimulated the investigations of the brilliant Antoine Laurent Lavoisier (1743-1794) at a dinner party at the latter's home in Paris by telling him that a candle burned better in dephlogisticated air than in ordinary air. Lavoisier quickly duplicated Priestley's experiment to produce oxygen and continued to work with it. At first he called it "vital air," but later named it "oxygen", meaning "the acid maker."

Lavoisier had been attempting to explain combustion for some time. On November 1, 1772 he had deposited a note with the French Academie stating that when sulphur and phosphorous burned they increased in weight because they absorbed "air." He did not attempt to explain the exact nature of the "air" until after Priestley's preparation of oxygen in 1774. He then concluded that Priestley's new "air" was absorbed by burning phosphorous and that the non-vital air, "azote" or nitrogen was left behind.[13]

During the period from 1775 to May, 1794 when he was guillotined, Lavoisier discovered and demonstrated the true nature of the interchange of gases in the lungs and demolished the phlogiston theory, needing only Cavendish's proof that water was formed when "inflammable air" or hydrogen was burned. He proved that the inspired air is converted into the "fixed air" described by Black (in reality the carbon dioxide isolated by van Helmont from fermentation 100 years previously) and that nitrogen or "azote" (which he also discovered) alone remains unchanged. Lavoisier proclaimed oxygen to be burned in the body in a similar way that fire burns material substances outside.[14] He was also able to prove that if mercury is heated with common air it combines with this "vital" part and forms the red oxide. If the oxide is more strongly heated, the vital air is recovered and that mixed in proper proportion with "azote" forms common air.

The credit for the discovery of oxygen really belongs to Lavoisier who realized its true nature. Boyle and Mayow suspected it; Priestley and Scheele isolated it, but Lavoisier proclaimed it.

The dawn of the 19th century brought the father of inhalation therapy boldly to the scene. Thomas Beddoes was born in Shifnal, Shropshire, England in 1760 and graduated from the medical faculty of Oxford University in 1786 at the age of 26. He spent two years in further study on the continent, where he apparently was acquainted with Lavoisier, returning to Oxford in 1788 as Reader in Chemistry where he proved to be an eloquent and popular lecturer. During this period he published excellent contemporary chemical treatises and "Observations" on the calculus, scurvy, consumption, catarrh, and fever. But Beddoes' generation was much concerned with chemistry and the work of Priestley and Lavoisier quickly engendered many finespun theories of disease that were attributed to the excess or lack of oxygen. Together with James Watt, Beddoes published work done between 1794 and 1796 in the form of essays, "On Factitious Airs." Included therein was the advancement of the therapeutic concept of treating patients by placing them in "factitious" atmospheres. It was this overall plan of inhalation of different gases that led Beddoes to found the Pneumatic Institute at Clifton near Bristol in 1798.

Thomas Beddoes had already been much in the public eye. His eloquently outspoken opinions and sympathies with the French revolutionaries had caused such a clamor at Oxford that he was forced to resign his lectureship in 1792. He promptly built a successful private practice of medicine, but his chemical studies had strengthened his belief in inhalational therapy and the need for a "pneumatic institution." With the aid of his father-in-law, Richard Edgeworth, his ability as a promoter quickly raised the necessary funds, and he persuaded young Humphrey Davy to accept the post of superintendent on October 2, 1798.

The apparatus, complete with unidirectional valves for non-rebreathing was devised by Beddoes and his colleague James Watt, and, although crude, gas was able to be prepared, condensed, rarified, tested, and administered. Equipment for the latter process was also crude, and although Ingenhousz had devised a rubber face mask as early as 1781, Beddoes used masks and breathing bags that were made of oiled silk.[15]

Despite the impurity of the gas and the crudity of the equipment, the Pneumatic Institute quickly became famous and among the many diseases claimed to be successfully treated were heart disease, asthma, dyspnea, opium poisoning, ulcers of all kinds, paralysis, leprosy, and venereal diseases.

Beddoes' own generosity in opening the doors to a local respiratory epidemic started the Pneumatic Institute to becoming an ordinary hospital, and as he himself became more interested in preventive medicine, the original purpose of the Institute slipped into oblivion. The discovery of the anesthetic properties of nitrous oxide by Humphrey Davy in 1799 was to be the Pneumatic Institute's greatest contribution. Davy left Beddoes in 1801 to become Professor of Chemistry at the Royal Institution at London. Davy, of course, published his discovery of nitrous oxide[16] but it was to be ignored for another half century. As his assistant, Davy took with him the young Michael Faraday.

Thomas Beddoes rapidly declined from the zenith at the Pneumatic Institute to a lonely, sad, and despondent death on Christmas Eve, 1808 in an abject feeling of failure. Actually he was a century ahead of his time, and although the Pneumatic Institute is classed as an unsuccessful venture in inhalation therapy, much medical and scientific progress was directly associated with it and evolved from it in the persons of Watt, Davy, and Faraday, who were later concerned with anesthesia, x-ray, aniline dyes, electricity, and the steam and gasoline engines. Clearly stated were the anesthetic properties of nitrous oxide and the advantages of combining it with oxygen. The experimenters also mixed ether vapor and air and found it "to produce effects very similar to those occasioned by nitrous oxide."[17]

Inhalation therapy today is much as Thomas Beddoes stated it: the inhalation of factitious airs. But he was handicapped by impure and expensive agents, lack of efficient apparatus, inadequate techniques, and indifference of the medical profession. Unfortunately, as a result of the misuses and abuses considerable skepticism arose as to the real value of inhalation therapy and in the following 100 years its procedures suffered the unmerited neglect which often supervenes when a method used as a panacea is shown not to be one.[12]

Read before the first meeting of the Connecticut Association of Inhalation Therapists, June 13, 1958.

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An Unusual Case of Contact Dermatitis

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Hartford

Contact dermatitis is considered to be the most common of all skin diseases.[1] Not all contact dermatoses have as their basis the allergic sensitization phenomenon. Many cases are caused by primary cutaneous irritants, such as: acids, alkalies, irritant elements, salts, essential oils, etc. By a primary cutaneous irritant one means that there is an agent which will cause dermatitis by direct action on the normal skin at the site of contact if it is permitted to act in sufficient intensity or quantity for a sufficient length of time. On the other hand, a cutaneous sensitizer is an agent which does not necessarily cause demonstrable cutaneous changes at first contact but may effect such specific changes in the skin, that after a period of five to seven days, or more, further contact on the same or other parts of the body will cause a dermatitis. The search for the causes of contact dermatitis is one of the intricate detective tasks with which doctors are confronted. In contact dermatitis a cure depends largely on the detection and the removal of the cause. Only by careful history, observation and appropriate patch tests, properly done and interpreted, can etiological factors be brought to light. The most typical example of a contact dermatitis of the allergic eczematous type, is poison ivy, due to an acquired sensitization to the plant, Rhus Toxicodendron. However, besides this common garden variety of plant dermatitis, there is an imposing list of flowers, trees, weeds, fruits, vegetables and woods which have the capacity to act either as primary irritants, sensitizers, or both.[2]

Recently, an unusual and interesting case of contact dermatitis due to the bristles of a cactus plant was observed, and it deemed worthy to report:

Mrs. K.A., 68 yr. old white housewife, first consulted me on Dec. 22, 1956 for an eruption of four months duration. Her past history revealed no other dermatoses, or allergies of the skin. There was no history of eczema, hay fever or asthma. Her eruption was neither painful nor pruritic and only slightly prickling in sensation. Because her symptoms were not alarming, she did not seek any medical advice or treatment. However, since the eruption seemed to have worsened and appeared to be spreading in the past month, medical advice was sought.

Examination revealed a rather interesting dermatosis. The eruption was made up of discrete, irregularly scattered erythematous papular and macular lesions, each lesion, when scrutinized with a hand lens, showed a central tiny spine, barely elevated above the surrounding level of the skin. On palpation, some of the spiny excrescences could just be felt in the skin on the level of the erythematous macule or papule. No lesion was ulcerated or crusted but an occasional few showed a miliary pustule in the center. There was a bizarre distribution of lesions, in that they were confined to the lateral and posterior surfaces of the left arm and also, to the antero-lateral and posterior aspect of the left thigh (Figs. 1 & 2). The medial aspects

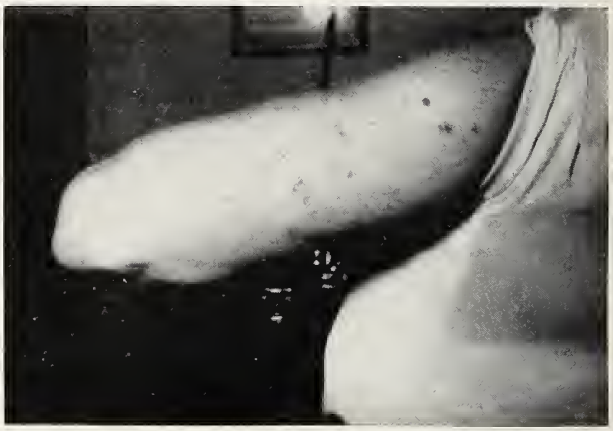

Figure 1
Contact dermatitis showing cactus spine lesions.

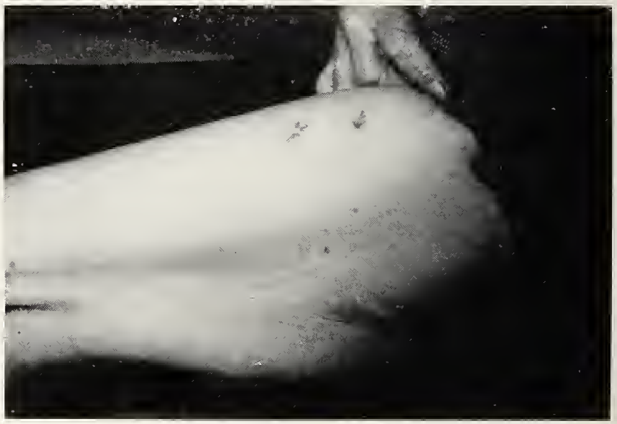

Figure 2
Contact dermatitis showing cactus spine lesions.

of the left arm and thigh were free of any lesions. The face and neck were uninvolved on the left side. The right side of the body was also uninvolved. With some difficulty, a spiny, sliver-like material was removed with the aid of a pair of forceps. This was examined under the microscope (Fig. 3). Several more specimens were removed for further study. On further questioning the patient with regard to plants or animal contact, she informed me that she had cacti plants in her basement. These had been purchased in Arizona approximately a year before.

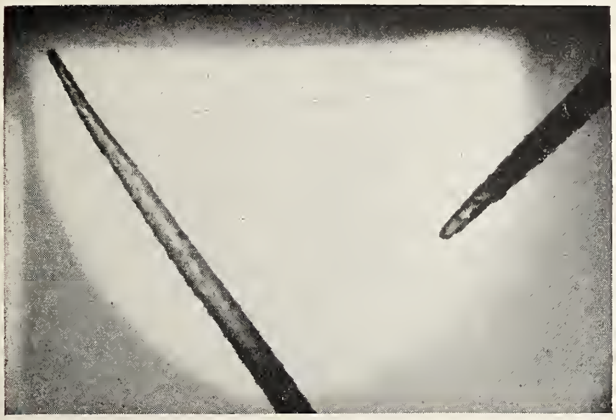

Figure 3

Photomicrographs of glochidia from plant and patient's skin. Note similarity to arrowheads with barbs at sides pointed towards base of glochidium.

On visiting her home, there were several varieties of Cacti, (Figs. 4 & 5). Further questioning revealed that the Cacti had been outside all summer but were brought into the house in late September to avoid early frost and cold. It was about this time that the first lesions began to appear on her arms. The patient would go down to the basement about once or twice a week to do the laundry, and her left side was exposed maximally to these cacti plants. In addition, it was noted that the house employed a forced warm air system, and that the sudden air currents would circulate the air at irregular intervals. Any microscopic spines that had become detached or loosened from the parent plants were circulated in the basement. These easily affixed themselves to her sweaters and garments and by movements would force the spines to penetrate the skin.

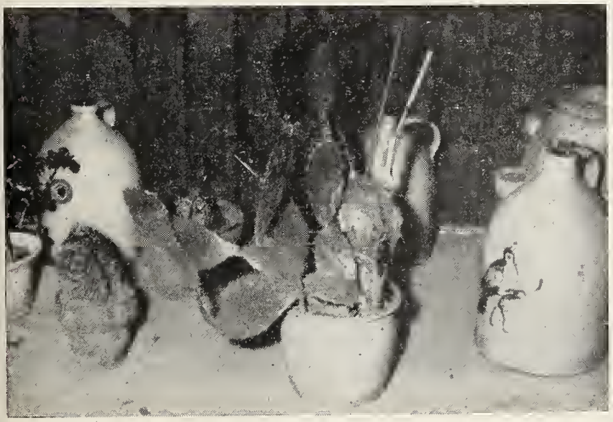

Figure 4

Several varieties of cacti plants in basement of patient's home. Foreground is the Prickly Pear Cactus (Opuntia robusta).

She was advised to put the plants outside the house, scrub the skin with phisohex soap and rub in a mild antibiotic ointment several times a day. In addition, adhesive tape was recommended to be applied to the groups of lesions, and after a few minutes the tape was quickly removed. This took out some of the spines that were above the level of the skin lesions, themselves. When again contacted several weeks later, all the lesions had healed, and no new ones had appeared.

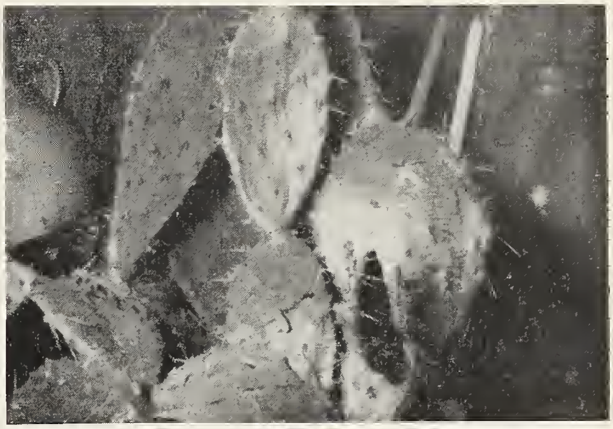

Figure 5

Enlarged photograph of Prickly Pear cactus showing glochids (barbed bristles).

The cactus plant responsible for her dermatosis was known as the Opuntia Robusta or Prickly Pear Cactus.

There are many varied types of lesions that cacti can produce and the magnitude of the kinds of lesions which have been reported due to cactus bristles has been indeed large and astounding. Purulent nodules and ulcerations, verrucous lesions, cystic bone lesions[3] and granulomata[4] with histology of sarcoid have been reported from these spines. Certain plant thorns, in or near bone, can cause a reaction in the tissues which may stimulate a neoplasm or granuloma. The reaction can be osteolytic or osteoblastic or a combination of these changes. Three cases have been reported: one due to a Yucca thorn, a second case due to a rose thorn, and third case due to a date palm thorn.[3] Symptoms and signs also reported were burning, prickling, stinging, and redness, papulation or nodulation.

Cacti are found native in every state of this country with the exception of Maine, New Hampshire and Vermont. The Southwest states, notably Texas and Arizona have a fine collection of innumerable cacti. In America (1923), N. L. Briton and N. J. Rose under the auspices of the Carnegie Institution of Washington, D. C. prepared and published four volumes, profusely illustrated and containing descriptive and other pertinent matter, entitled, "The Cactaceae" in these volumes there were described some 125 genera embracing over 1200 species. The distribution included such varied localities as tropical sections of South America, arid and barren deserts, cold, rugged mountain areas, ocean shores, and canyons rich in leaf mold and moisture.

According to Haselton and Roan,[7,8] the common names for cacti are less satisfactory than botanical names, since, in various parts of the world, the same common name may be entirely different from the one with the same name elsewhere. For example: when one finds the hedgehog cactus from Arizona, one finds that it is entirely different from one by the same name in Texas, and these in turn differ from many hedgehog cacti from Mexico. It is also to be noted that the Prickly Pear which causes an occupational dermatitis known as Sabra dermatitis belongs to the cacti family and is different from the prickly pear cactus in Arizona, shown in Fig. 5, and which is the subject of this case report.

Interesting cases of Sabra dermatitis have been reported as occupational, due to prickly pear handling.[9] Patients were engaged in the prickly pear trade with the picking and selling of the product. These people were in direct contact with the fruit. The prickly pear fruit grows in North and South America, Mexico, Morocco, Tunisia, and Italy. One large group in the Cactus family is the Opuntiodeae, and its most important type is Opuntia Ficusindica, (prickly pear), called Sabra in Israel. Note that the Sabra (prickly pear) is the fruit of Opuntia ficus-indica, and is entirely different from our Prickly pear cactus. Any flat-stemmed Opuntia is given the name of Prickly pear.

Cacti have barbed bristles which are fine and fuzzy and are known as Glochids. Large spines of the plant arise from the areole. The hallmark of all cacti is the existence of the areole which resembles a miniature pin cushion. Where spines are present, they always develop from some part of the areoles.

A single glochidium is about 6-10 millimeters long and cone-shaped. Over the entire length of the glochidium are two or three dozen rows of barbs, placed in a circular fashion and attached in downward angles like arrowheads. Since the direction of the barbs on the spines resembled arrowheads, and are pointed toward the base of the plant, it is easy to see why there is difficulty in removal of these foreign bodies from the skin. (Fig. 3). Signs and symptoms would slowly disappear in three to five days when the spines are manually removed. Occasionally small local areas of necrosis would account for the spontaneous removal of the spines, or washing with warm soapy water, shaving with a razor, or brushing with a stiff brush.

Naturally, it would be important to know more about the chemical nature and substances of the bristles, which are undoubtedly liberated when they come in contact with the skin. Previous work on cactus spines indicate that when the Hotchkiss-McManus stain is used, they are colored bright red, which may indicate a polysaccarhide material. In a recent article there is a high-powered view of the Cowhage spicule showing its barbed structure. This single spicule is capable of injecting a sufficient proteinase intraepidermally to stimulate an intense localized pruritus. The active itching principle of cowhage has been isolated, purified, and shown to be a new plant proteolytic enzyme, mucunain.[10]

We are in constant contact with new drugs, new chemicals, new plants, new materials, either taken in through the mouth, or the respiratory system, or through the skin, and these substances may be at the basis of pathological reactions of tissues throughout the body. In a recent article, there has come to the attention of the medical profession, the possibility that peculiar bilateral lung changes may follow the inhalation of hair sprays. Foreign body granulomatas were reported.[5] At one time, in the past, there were a number of cases reported of sarcoid granulomata of the skin following the implantation of beryllium salts from broken fluorescent tubes and bulbs. In an excellent article by Shelley and Hurley, granulomata in the skin and elsewhere may be the result from as many as thirty-eight different individual foreign bodies.[6] It is interesting to learn that, also, recently, one of the causes of the disease complex, known as sarcoidosis, may be due to the inhalation of the pollen from the Eastern Coast pine tree.

The skin is a most excellent organ for the observation of various types of pathological processes since it is accessible and it is visible, and histological study can easily be obtained at any time. The type of pathological changes that may occur in the skin may well represent what takes place systemically and in various other organ systems.

SUMMARY

An unusual and interesting type of contact dermatitis from exposure to a cactus plant is reported. The various kinds of skin lesions produced by the bristles from the plant are reviewed. The sources and numbers of physical agents, be they animal, vegetable or plant, are innumerable and unlimited and can cause various types of skin reactions and systemic reactions in susceptible patients when there is adequate exposure and contact. It is only with the recognition of the innumerable possibilities of such causes, and removal thereof from the patient, that cures may be obtained in the apparently idiopathic case.

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Survey Shows People Want To Choose Own Doctor

More than three-fourths of the population of the United States want to choose their own doctor.

In addition, they want to assume all or part of the responsibility for paying their doctor bills.

These were among the findings in a survey conducted among a sampling of the adult general population by Opinion Research Corporation, Princeton, N. J., for the American Medical Association.

The purpose of the study was to explore attitudes about the choice of physicians.

The study also showed that:

Eighty-eight per cent of the population believe the right to see the same doctor regularly is of vital importance.

Eighty-nine per cent believe that medical care in this country has improved over the past 20 years. Half of these persons ascribe the improvement to more and better research and advances in medical science.

Seventy-six per cent of the people said they wanted to choose their own physicians; 13 per cent saw no difference in whether they or someone else chooses their physician; 8 per cent preferred to have someone else choose, and 3 per cent had no opinion.

In answer to further questioning, 93 per cent of those surveyed felt that free choice would give them more confidence in the doctor; 84 per cent thought doctors would take a more personal interest in them, and 79 per cent believed they would have less trouble getting the doctor to make a home call.

Concerning the right to see the same physician all the time, 88 per cent felt this right to be very important. Of the 12 per cent who did not feel such continuity to be of vital importance, 8 per cent saw no difference in whether or not they saw the same doctor every time, and 4 per cent gave other comments.

When queried about the main advantages of a regular doctor, those interviewed gave a variety of reasons. Sixty-two per cent cited the physician's knowledge of their medical history. They said, "He knows your system inside and out from dealing with you regularly; he knows what you've had."

Also mentioned by 30 per cent was reliability on emergency calls; confidence in the physician by 21 per cent, and a closer relationship between doctor and patient by 18 per cent.

Concerning the payment of medical bills, a total of 79 per cent wanted to assume all or part of the responsibility for paying their doctor bills either by direct payment or by paying part of insurance premiums.

The 79 per cent breaks down into the following: 16 per cent for paying all doctor bills directly; 16 per cent for paying all costs of insurance plans, and 47 per cent for paying part of the cost of an insurance plan. The remaining 21 per cent favored someone else's paying the bills.

The Cardiac in Connecticut Industry

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Waterbury

Heart disease in its various manifestations is admittedly this country's major medical problem. Some nine or ten millions of our citizens are afflicted, and it stands far in front of all other diseases as the leading cause of death.

Heart disease or no, most of us find it necessary to engage in some sort of gainful employment; and the individual with a cardiac handicap is frequently faced with the difficult and discouraging problem of obtaining it.

Two years ago The Cardiac-In-Industry Committee of the Connecticut Heart Association, feeling that the problem facing the cardiac seeking employment could not be solved without first defining it, made an attempt to do this by means of a questionnaire addressed to all companies in the State whose employment rolls numbered fifty or more. This questionnaire, in all frankness, was not as exhaustive as desired, but the sacrifice was made for two reasons: first, it would be completed in most instances by lay people (employment managers, personnel directors, etc.), and secondly, because questionnaires are always a nuisance; and the Committee was convinced that a more complete sampling would be obtained if it were made as brief and simple as possible.

This questionnaire was addressed to 1156 companies and replies as tabulated below were received from 543—representing a total of 323,184 employees:

Table I
Cardiac-in-Industry Questionnaire

Questionnaires sent out	1,156
Questionnaires returned	543—47%
Number of employees	323,184

1. Do you give a pre-employment physical examination?	Yes 313	No 230
2. Do you employ a physician?	Yes 310	No 224
Full Time	30	
Part Time	101	
On Call	220	
3. Do you employ a nurse?	Yes 198	No 344
Full Time	179	
Part Time	16	
On Call	3	
4. Do you require a physical examination of employees returning after illness?	Yes 180	No 363
5. Do you reject applicants for employment with known heart disease?	Yes 161	No 382
6. Do you reject employees returning to work after having heart disease?	Yes 25	No 518
7. Is there any consultation or communication between supervisors, the plant physician and the family physician before returning the employee to work?	Yes 287	No 256
8. Do you feel that proper placement of the worker with heart disease would present any problem with respect to seniority provisions in the union contract?	Yes 119	No 424
9. Do you feel that the properly placed worker with heart disease would present any problem along the following areas?		
Inability to produce consistently	Yes 90	No 453
Absenteeism	Yes 141	No 402
Compensation Insurance Risk	Yes 175	No 368
Hazard to other workers and equipment	Yes 77	No 466
10. How many, if any, deaths on the job from heart disease have you had during 1954?	119	
11. Would you like to be informed periodically of the functions of The Cardiac-in-Industry Committee and receive other information as it becomes available?	Yes 373	No 170

Signatures were not required, but the forms were coded according to types of industry replying, as follows:

Table II
Types of Industry and Number of Replies

Apparel	32	Ordinance	5
Auto Repair	5	Other Mech. Workshops	10
Chemicals	15	Paper	13
Electrical Equipment	53	Printing & Publishing	28
Food	8	Primary Metals	42
Fabricated Metals	79	Rubber	13
Furniture & Fixtures	6	Stone, Clay & Glass	7
Instruments & Clocks	23	Textiles	50
Leather	8	Tobacco	1
Laundry	2	Transportation Equipment	14
Lumber & Wood	3	Insurance	2
Machinery	83	Medical Service to Insurance & State Health Dept.	2
Mfg. Misc.	36		

Replies to the questionnaire represented 47 per cent of all companies approached, and the distribution by type of industry as noted in Table II is equally broad.

Table III shows a breakdown according to areas served by local Heart Association Chapters, and it will be noted that replies in most instances equalled or exceeded 50 per cent of the questionnaires sent.

Table III
Questionnaires Returned from Industries
Listed by Chapter Areas

	Questionnaires			Questionnaires	
	Sent	Received		Sent	Received
Bridgeport	166	74	New Haven	168	87
Danbury	64	17	New London	34	18
Greenwich	8	7	Northwest	30	10
East Windham	32	15	Norwalk	64	31
Hartford	166	86	Stamford	61	30
Manchester	34	14	Waterbury	90	46
Meriden	44	18	Willimantic	11	7
Middlesex	47	28	Unorganized Areas	56	32
New Britain	41	20			

A further check of "yes" and "no" answers to the questions in Table I revealed that in each area they were approximately parallel to those of the statewide totals; which would indicate that trends are general with no local overloading.

It would seem, therefore, that reasonable conclusions could be drawn from this sampling regarding the problem of cardiac employment throughout the State.

No physician will take issue with the statement that most cardiacs, properly placed and supervised, are employable; but it would appear that a considerable segment of Connecticut industry has not yet learned this.

In general, it may be said that the magnitude of the problem confronting a cardiac seeking a suitable job is inversely proportional to the stature of the in-plant medical service of the company whose employment he seeks. Furthermore, since very few practicing physicians are familiar with the physical requirements of jobs in industry, and since very few industrial physicians pretend to be cardiologists, the satisfactory placement of the cardiac must of necessity be a co-operative undertaking. If both pool their knowledge, the individual will be properly placed; and with adequate physician-supervisor liaison, all problems—save one—evaporate. The single remaining problem is the obvious one of job availability. In some industries or their subdivisions where all work is heavy or hazardous, there may be no "selective" or "modified" work to be had. These companies, however, employ but a very small percentage of the total labor force in this State and their cardiacs could well be placed in suitable jobs elsewhere.

A further breakdown of the figures indicated that a sizeable number of employers who have no contact with any physician refuse employment on the basis of history alone! Who can tell how many honest noncardiacs are unemployed because they were told at sometime in their childhood they had a "murmur"? (One report from a Work Classification Unit in New York stated that approximately 25 per cent of all cases referred for evaluation had no evidence of heart disease!) Or how many unknown cardiacs are working at jobs beyond their capacity? These unknown cardiacs are the hazard to themselves, their fellow-employees, and the company; the *known* cardiacs properly placed and supervised present no problem.

Table I indicates that there is greater concern over absenteeism and compensation insurance risks than there is over inability to produce or hazard to fellow-workers or equipment.

However, large companies which keep statistical analyses of absenteeism have demonstrated that the frequency of cardiac absenteeism is below the company average; but that the duration of illness is somewhat above average. This latter, however, is heavily weighted by the elderly, long-service, arteriosclerotic employee who is frequently absent from his job for many months immediately prior to retirement. Despite this, I strongly suspect that an insurance company would much prefer to underwrite the absenteeism of cardiacs than that of married females who, during the summer months, are absent with such "rest-cure" diagnoses as hypotension, secondary anemia, menopausal syndrome, anxiety neurosis, neurasthenia, nervous exhaustion, and several others!

The spectre of compensation insurance claims was discussed very ably at a conference on "Heart in Industry" conducted by the New York Heart Association on November 20, 1953. One of the participants, Dr. Louis N. Katz, director of the Cardiovascular Department, Medical Research Institute, Michael Reese Hospital, Chicago, said "Work cannot cause coronary disease, hypertension or rheumatic heart disease. There is no substance to the fiction that work can lead to any type of heart disease. Only under special circumstances can toxic materials in a job, operating over a long time, lead to high blood pressure. Only under special circumstances can certain particulate matter in the dust inhaled in certain industries lead to a special form of heart disease, chronic cor pulmonale. But these are the exceptions that prove the rule that work does not lead to heart disease.

"Work can aggravate the symptoms of heart disease already present, but this is either the result of an extraordinary effort unusual to the job or a progress of the heart disease independent of the job. It is the need to uncover the presence of heart disease which might limit full employment at one's accustomed job that demands periodic health surveys of all employees. . . .

"Work, one's vocation, like play, one's avocation, is a normal state of affairs. It is as normal as pregnancy and eating. Therefore, work to which one is accustomed cannot be considered as detrimental *per se*. One would have to blame sleep and taxes (to pick out two other unavoidable events in our existence) as much as work for cardiac disability. I cannot understand why an employee who develops a heart attack while at work should be considered to have developed it *because* of the work, any more than one would blame sleep when such an attack occurs during sleep. Of course, if it can be shown that the employee was subjected to an excessive stress not ordinarily sustained on the job, the situation would be different."

Dr. Howard B. Sprague, physician, Massachusetts General Hospital, said, "If strenuous labor were responsible for the development of heart disease, how does one explain the lower than average mortality of farmers from these diseases? I doubt if you could convince the average farmer that he does not work hard, yet he has the best record of employment into old age." . . . And, "Finally, we must be impressed with the fact that the death rate for white males in this country between thirty-five and fifty-four has doubled in the past thirty years, while that of women in this age group has remained the same; and this increase is visible only in the cardiovascular causes of death. Furthermore, it is of great interest to me that this has occurred during the greatest increase of the industrial employment of women.

"In fifty years the percentage of the total female population in the labor force has grown from 14 to 25 per cent. If work disables people by producing heart disease, it must do it by selectively attacking men or else work in the labor force is no harder for women than work in the house, which seems to me as good an argument as any for letting the women do all the work. They are more durable than men, and it has been said that, after the menopause, they are 'well nigh indestructible' ".

It is unfortunate that the 250 to 300 Connecticut employers concerned about the cardiac as a compensation risk were not there to hear them! Furthermore, an unofficial investigation of compensation awards in Connecticut during the past 10 years for cause or aggravation of heart disease reveals that they have been negligible.

The apprehension of 119 employers regarding proper placement of the cardiac because of seniority provisions in the union contract may well have been justified at the time this questionnaire was answered, but there is no good reason to believe that this situation should continue indefinitely. Organized labor at all levels has long since proved its interest in the employment of the handicapped and in my opinion would be ready to negotiate a contract whose seniority provisions in this regard would at once be flexible and realistic both in word and interpretation.

It has been stated at many meetings in various parts of the country that the real solution to the problem of employment of the cardiac lies in education—education which will lead to greater cooperation between management and labor, and to extended medical coverage in smaller industry. I believe we should underline education of the employer, since nothing can be accomplished until he is taught that the properly placed cardiac can work safely and pull his own weight.

Our own figures bear out this need for education. Thirty per cent of employers in Connecticut refuse employment to known cardiacs, and 52 per cent who employ cardiacs permit their employees to return to work without any type of prior communication with a physician.

The Cardiac-In-Industry Committee of the State Heart Association determined to start the attack on this problem by the establishment of a Work Evaluation Unit similar to those currently meeting with success in Boston, Philadelphia, Springfield, Cleveland, Scranton, and some fifty other cities in the nation. This for us would be an attempt at education by demonstration.

After some deliberation, the Committee decided that the Unit should be set up in Waterbury, the center of the highly industrialized Naugatuck Valley; and that it should be subsidized for a trial period of two years by the State Heart Association.

Obviously, no undertaking of this sort could hope for success without the blessing and support of a majority of physicians who treat employable cardiacs. The first step, then, was taken in a letter addressed to all physicians in the immediate area. In this letter the basic operating procedure was outlined as follows:

"1. The Unit is not for purposes of diagnosis or treatment, but merely to determine the individual's work capacity;

"2. Referrals will be accepted only from attending physicians (at no charge to the patient);

"3. Results of the evaluation will be forwarded to the referring physician (in the form of a Physical Capacities Analysis) who may then make them available to a prospective employer for his guidance in placement."

Return cards indicated that 87 per cent of all local physicians treating employable cardiacs felt that such a Unit would be of advantage to them in their practice.

With this encouraging response, the remaining problems were concerned with housing, equipment, and staff. The personnel engaged consisted of a qualified cardiologist, an experienced medical social service worker, and a vocational counsellor whose forty-odd years of experience in the personnel department of one of the larger companies in the area provided knowledge of most of the job requirements and local employment practices.

This staff then spent two days at the Work Evaluation Unit in Cleveland where they became familiar with the procedures of one of the country's most successful units.

On February 6, 1957 the Waterbury Unit received its first patient. His physical status was evaluated by the cardiologist following a physical examination and various tests: fluoroscopy, electrocardiograph, ballistocardiograph, exercise tolerance, and vital capacity determination. The social service worker and the vocational counsellor investigated other important factors: the social, economic, and cultural background, his outside activities, factors influencing his getting to work and home, as well as his skills and previous work experience.

Subsequently, at a staff conference, all of this information was pooled, and the result was a Physical Capacities Analysis forwarded to the attending physician which spelled out specifically the type of employment in which this man could be profitably and safely employed.

The Unit had now performed its function which was to determine:

1. Can this patient with heart disease work?
2. Will the heart condition be adversely affected by his return to work? And,
3. Can the employer hire this man at a profit?

Having answered these questions and concluded that the individual could be safely employed, the Unit then spelled out in specific terms the physical capacity of the man to perform—terms understandable to the supervisor responsible for his future production.

This has been the pattern. To date 39 patients have been seen at the Unit, and of these

14 have returned to their usual occupations;
7 have returned to lighter, more suitable work;
8 have been determined to be unable to engage in gainful employment;
10 able to work, but no jobs available; and
2 showed no evidence of heart disease.

Through the assistance of the Naugatuck Valley Industrial Council, all companies in the area served by the Unit have been told of the project, its aims, function, procedure, and method of referral. For those industries which have no contact with physicians, the Unit provides a small, but excellent, segment of an inplant medical program.

Very brief case reports, of which the following is typical, have been sent on occasion to physicians in the area:

CASE REPORT
WORK EVALUATION UNIT

Patient: Male, Age 38.
Married—3 children.
Myocardial Infarction July, 1956.
Referred for Evaluation Feb., 1957.

Social Service Report:

Grave financial condition; wife suffering from multiple sclerosis, unattended for over a year; unemployment compensation limited to $44.00 weekly; 10 per cent V.A. disability pension for psychoneurosis. Deeply concerned over what provision could be made for his family. An initial social service agency referral was unsatisfactory.

Vocational Counsellor Report:

No formal job training; has worked as factory painter and house-to-house salesman; latter required excessive daily stair climbing. State Rehabilitation Department testing produced no tangible results.

Medical Diagnosis:

1. Arteriosclerotic Heart Disease; normal rhythm and heart size; compensated on ordinary activity—Class IB;
2. Myocardial Infarction (remote);
3. Bronchitis, chronic.

Results:

Second referral to social agency was successful for assistance with immediate family problems. The patient first accepted employment of a type not recommended by the Unit. He had to leave this job after three months because of exertional dyspnea and general tiredness. The patient is now employed in a factory where job placement was done on the basis of the Unit's evaluation report. His salary is good and work enjoyable. He has no cardiac symptomatology. The Cardiac Work Evaluation Unit, by request of the attending physician, will continue a follow-up of this patient at regular intervals. His physician has received all reports and is actively following the patient.

The operation of the Work Evaluation Unit appears to be achieving results which are gratifying to all concerned. Patients who have resumed employment are working effectively without damage to themselves, and are also performing to the complete satisfaction of their employers. Referring physicians who have been invited to be present and assist in the evaluation process also consider the Unit a practical method for the proper placement of their cardiac patients.

This is just a beginning, and in only one small section of the State. The education process must continue if the mental and economic suffering of our employable but unemployed cardiacs is to be relieved. The road is a long and hard one; but a forward step has been taken, and we trust it is in the right direction.

ACKNOWLEDGEMENT

The writer is indebted to Mr. Joseph P. Muldoon, Field Representative of The Connecticut Heart Association, who was responsible for the coding and statistical analysis of the questionnaires.

Relation of Bone Age to Chronologic and Mental Age in Mentally Retarded Children*

Laura C. Gothberg, m.a., and Neil A. Dayton, m.d.
Mansfield Depot

INTRODUCTION

In a training school for retarded children the bone age of the hand is frequently noted to be below the chronological age. The question arises whether or not any correlation exists between mental age and bone age in the retarded, and also between life age and bone age in normal children.

The children seen in our out-patient clinic are given psychological tests and have their hands x-rayed if ten years or younger. These children range from the severely retarded to those in the normal intelligence range. It is from this out-patient group that the cases for this study was taken, with the assistance of the x-ray department where the bone ages were checked. One hundred and sixty children were classified into the various intellectual categories, and correlations made between chronological age and mental age, chronological age and bone age, and mental age and bone age for each of the five groupings.

Table I
Correlations*

DEGREE OF RETARDATION	N	CA_1	MA_2	BA_3	IQ	r12	r13	r23	r23.1	r13.2
Severe	20	5-6	0-9	4-5	13	.40	.81	.79	.88	.87
Moderate	50	5-10	2-1	4-8	36	.88	.71	.65	.10	.39
Slight	40	6-8	4-0	5-11	60	.90	.62	.60	.15	.23
Border	20	7-7	5-5	6-8	73	.88	.60	.61	.22	.16
Normal	30	7-4	6-11	6-1	93	.78	.68	.70	.37	.29

* "Symbol designations: N—Number of cases in each group; CA_1—mean chronological age; MA_2—mean mental age; BA_3—mean bone age; IQ—mean intelligence quotient.

r12—correlation coefficient between chronological age and mental age; r13—correlation coefficient between chronological age and bone age; r23—correlation coefficient between mental age and bone age.

r23.1—correlation coefficient between mental age and bone age, chronological age held constant; r13.2—correlation coefficient between chronological age and bone age, mental age held constant."

RESULTS

Severe Retardation

There were 20 of these children ranging in chronological age from three years one month to eight years two months; in mental age from four months to seventeen months; in bone ages ranging from sixteen months to seven years ten months; in IQ's from 9 to 18. The averages were: CA 5.6, MA .9, BA 4.5, IQ 13. With the unit 1.0 designating perfect correlation, the correlation between Chronologic Age and Mental Age was .40, between CA and Bone Age .81 and between Mental Age and Bone Age .79. In this group of severely retarded there is but slightly greater relationship between life age and bone development than between mental age and bone age. With chronological age held constant, that is if all were the same age in this group, the relationship between mental age and bone age would be .88. If mental age were the same for the entire group, the correlation between life age and bone age would be .87. Hence, although the relationship between mental age and life age is only .40, both apparently exert an equal influence on bone age determination in this group. Stated another way, the factors determining mental and life age seem to be operative in determining bone age.

MODERATE RETARDATION

The chronological age of these 50 children ranged from three and a half years to ten years three months, the mental age ranged from eleven months to five years, and the bone age from fifteen months to ten years. The averages were CA 5.10, MA 2.1, BA 4.8, IQ 36. The correlation between life age and mental age in this group was .88, between life age and bone age .71, and between mental age and bone age .65. Again there was greater relationship between life age and bone age than between mental age and bone age. With life age held constant the relationship between bone age and mental age dropped to only .10, while between life age and bone age with mental age kept constant, it was .39. Life age therefore appears to be a much greater factor in bone age than mental age. Since the relationship is comparatively low there are apparently other factors of greater influence than either mental age or life age which are concerned in this the growth process of bone.

SLIGHT RETARDATION

The chronological age of these 40 children ranged from 18 months to ten years one month; mental age ranged from eleven months to seven years, and bone age from ten months to ten years. The averages were CA 6-8, MA 4-0, BA 5-11, and IQ 59.5. The correlation between life age and mental age was high, .90 for this group, .62 between life age and bone age, and approximately the same .60 between mental age and bone age. Holding life age constant, the correlations between mental age and bone age was .15, holding MA constant, the correlation between life age and bone age was .23. Again CA was a greater factor but does not account entirely for the difference.

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* Read before the 81st Annual Meeting of the American Association on Mental Deficiency, Hotel Statler, Hartford, Conn., May 21-25, 1957.

BORDERZONE

There were 20 children in the borderzone group who ranged in chronological age from five years to seven years ten months; in mental age from three years eight months to six years eight months, and in bone age from three years to nine years. Averages were CA 7-7, MA 5-5, BA 6-8 with the IQ 73. The correlation between life age and mental age was .88, between life age and bone age .60, and between mental age and bone age .61. With life age constant the relationship between mental age and bone age was .22; with MA kept constant the relationship between life age and bone age was .16 reversing the findings of the last two groups. Apparently the factors which determine mental age in this category are somewhat more bound up with the factors governing bone age than those determining chronological growth, although the difference is not great.

AVERAGE

In this group are placed 30 children with the IQ ranging from 81 to 113, the average falling at 93, hence there are rather more children under IQ 100 than above. The chronological range was from five years to nine years, mental age ranged from five years to nine years, bone age from two and a half years to ten years. The boy who had this bone age of ten, was nine years chronologically, with a mental age of seven years four months, and had an IQ of 81. Hence in this one unusual case, the boy with the lowest mental-age/life-age ratio of the group, had the highest bone age. Averages for this group were: CA 7-4, MA 6-11, bone age 6-1, IQ 93. The relationship between life age and mental age in this group was .78, between life age and bone age .68, and between mental age and bone age .70. Holding life age constant the correlation between mental age and bone age was .37, and holding mental age constant, the correlation between life age and bone age was .29. Hence factors governing mental age contribute more to bone age than life age in this grouping also.

DISCUSSION

Table II

Variability, by Mental Status: Standard Deviation in Months

DEGREE OF RETARDATION	CHRON. AGE	MENTAL AGE	BONE AGE
Severe	18.	3.7	21.0
Moderate	17.3	9.9	24.6
Slight	21.7	14.1	23.8
Border	12.6	10.1	15.6
Average	13.5	15.0	22.8

From Table II it is seen that the slightly retarded children varied more in chronological age than the others, and that there is a rather sharp drop in age variability when border and average children are compared with the more severely retarded. In mental age the average and slightly retarded in this sample are more variable. In bone age the variability remains fairly constant, with the exception of the borderzone classification.

A previous study[1] of human growth and development found that the skeleton of the adequately nourished child develops as a unit. Its various parts tend to keep pace with each other in their maturation. The carpals, the epiphyses, and the shafts of long bones, may be affected by severe illness as ossification is interrupted. The standards of the bone growth of average school children are compared with the bone ages of the retarded children in our study.

Table III

Comparison of Deviations in Standard and Retarded Groups: Skeletal Age in Months

CHRON. AGE IN MONTHS	STANDARD MEAN	STANDARD S.D.	RETARDED MEAN	RETARDED S.D.
48	56.0	8.4	34.0	9.0
60	62.4	8.8	49.7	17.3
72	75.5	9.2	70.9	12.5
84	88.2	8.9	79.3	14.9
96	101.4	9.1	85.0	18.9
108	113.9	9.0	102.8	19.1

In the life ages of four and five years (48 and 60 months), the mean bone age of the children in the standard study averages 2 to 8 months above the chronological age. In our retarded group the bone age was 17 and 15 months respectively below the mean. Continuing in the retarded, the bone age was 10 and 11 months lower respectively for life years of 6 and 7; 15 months below for age 8 years; and 8 and 3 months lower, for years 9 and 10. The small numbers in these last two age groups render significance questionable.

The variability is also interesting. In the standard study the standard deviation is fairly uniform—

8 months in year 4, 9 months years 5 through 9, and 10 in year 10, the deviation increasing with chronological age. In our study there was no uniformity, and the standard deviation was large, ranging from 9 months to 19 months. It would seem therefore that in these community cases of mental retardation we have a suggestion of greater nutritional deprivation than in the normals of the standard study. This finding prompted a study of the existing illnesses as reported in these cases.

The relationships between certain symptoms, conditions and illnesses, and bone growth, as recorded from the rather limited histories, are tabulated in Table IV.* Children presenting cerebral palsy, or described as nervous, undernourished, or who were ill under 5 years, show between 94 and 100 per cent with bone age below normal. The same four groups also show the high mean deviations in bone age below average, of 25, 24, 26, 18 months. It is interesting that "No illness reported", revealed the lowest mean deviation in bone age below normal, that of 13 months. The previous basic material suggests a linkage between mental retardation and bone retardation. However, we see that the presence of certain illnesses may be making a further contribution of their own in this deviation below normal. Also, the absence of physical illness may act as a modifying influence. The presence of physical illness seems to depress bone maturation, quite apart from the unknown basic causes of the primary failure of bone structure in the retarded.

TABLE IV

OCCURRENCE OF BONE AGE DEVIATIONS BELOW NORMAL IN CERTAIN PHYSICAL CONDITIONS: NUMBERS, PERCENTAGES AND MEAN DEVIATIONS IN 160 CASES

TYPE	TOTAL NUMBER	BONE AGE BELOW NORMAL		RANGE OF DEVIATIONS BELOW NORMAL MONTHS OF BONE AGE	AVERAGE DEVIATION BELOW NORMAL MONTHS OF BONE AGE
		NUMBER	PER CENT		
Cerebral Palsy	6	6	100	-7-38	-25 months
Nervous	3	3	100	-9-34	-24
Illness, 2-5 years	5	5	100	-7-29	-18
Under nourished	17	16	94	-7-55	-26
Anemia	9	8	90	-4-38	-15
Illness, 1-2 yrs.	27	23	85	-1-51	-18
Anomalies, skeletal	19	16	84	-4-48	-20
Pneumonia, 1-2 yrs.	17	12	70	-7-53	-27
Premature	24	17	70	-3-35	-16
Convulsions	21	14	70	-3-32	-15
Illness after 5 yrs.	14	9	64	-1-42	-18
No Illness reported	45	35	80	-1-89	-13

This material, of course, does little more than offer a few suggestions. For a definitive study we need far more information concerning the growth and nutrition of the child in utero, and of the mother's blood chemistry and general physical and psychological condition, and also detailed information on the prenatal and natal processes.

SUMMARY AND CONCLUSIONS

One hundred sixty children were classified according to mental status. Fifty were above IQ level of 70 and 110 were below. Correlations were calculated between life age and mental age, life age and bone age, and bone age and mental age for the groupings of severely retarded, moderately retarded, slight retardation, borderzone and average. There was little difference in the correlations between life age and bone age with mental age variable, and also between mental age and bone age with life age variable. In the calculations mental age was held constant, partialled out, and thus not allowed to influence the relationship between chronological age and bone age; also life age was partialled out and not allowed to influence the relationship between mental age and bone age. It was found that for retarded children below IQ 70, life age was more influential in the correlation with mental age, than bone age. For children in mental categories of borderzone and normal, bone age was more influential in the correlation with mental age, than life age. The correlation coefficients dropped from the 60-70 range (except with the severely retarded where there was no change) to the 10 to 30 range when one factor was held constant. This would seem to indicate that although bone age and mental age are both influenced by life age, there are other unknown significant factors which are determing bone age. We have suggestion of association here

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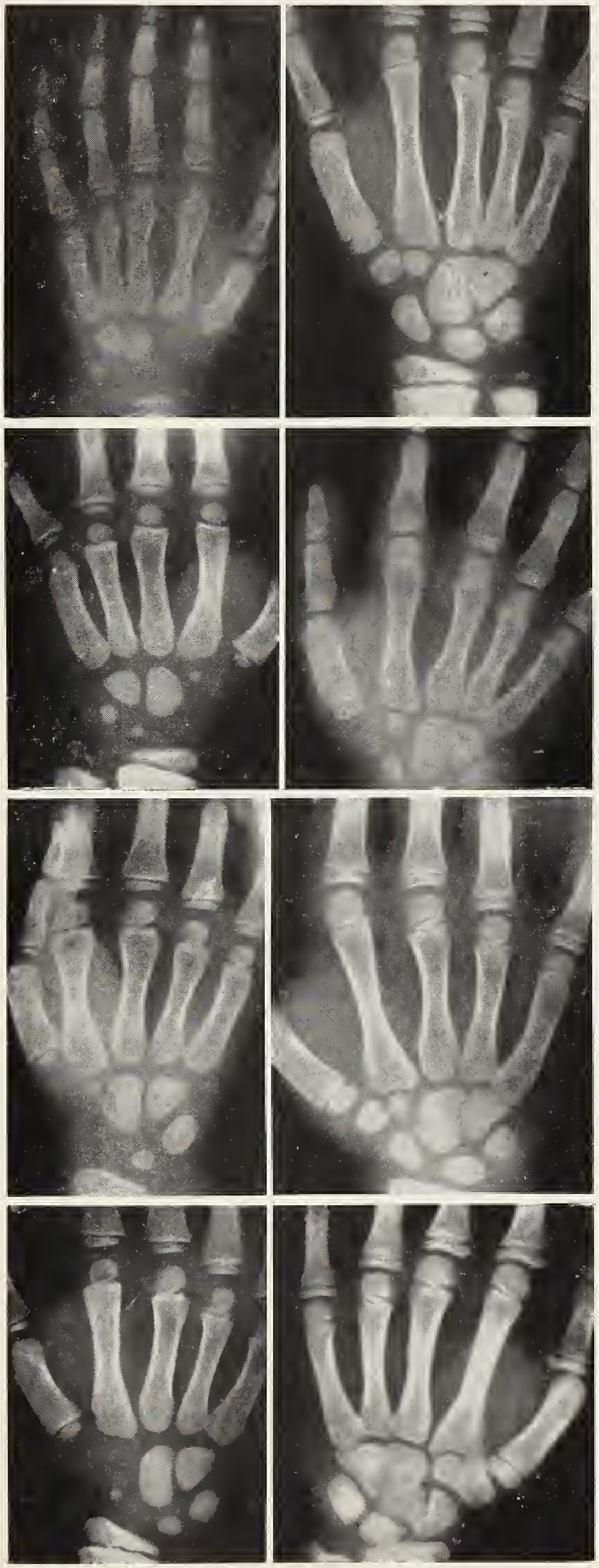
* The basic diagnoses in Table IV are very unsatisfactory and the table is included with some diffidence. It was considered that the exclusion of this part of the material would be to exclude valuable suggestions, the first of which would be the training of social workers in medical terminology.

Graph 1. Four Pairs of Roentgenograms of Carpal and Metacarpal Bones, Selected to Show Bone Growth Variations in Mentally Retarded, Each Pair of Same Life Age Left of Each Pair Showing Bone Age Below Life Age, and Right of Each Pair Showing Normal Bone Age for Life Age.



but not a definitive answer. Certain physical illnesses tend to be associated with deviation of bone age below average.

More details in reference to the age of the mother, the prenatal and natal factors, the nutritional status of mother and child during gestation, at birth and during the first two years, and the calcium metabolism of mother and child, are essential in order to check the relationship of these vital developmental factors and mental retardation.

COMMENT

This paper provides an example of the ideal research project, one which provides a powerful stimulus for further research. In Graph 1 we have selected four pairs of roentgenograms of the hands of patients examined in our Out-Patient Department. In each pair we show, at the left, a case in which the bone age is definitely below the development expected for the chronological age of the patient. At the right we see the normal development of the skeleton of the hand for approximately the same chronological age. In each pair both patients were referred to us as mentally retarded. The patient at the left is retarded in skeletal development as well as in mental development. The patient at the right is mentally retarded only. The reason for this apparent inconsistency lies in other factors which will require further study and analysis. Miss Gothberg has brought out that the borderline groups and the average or normal groups, present interesting correlations between bone age and chronological age. Dayton[2] found the same two groups showed a high incidence in studying the relationships between age of mother and birth of retarded school children, and also in the factor of abnormal labor[3] as a possible etiological factor.

It is our hope that other State Training Schools may be able to run similar series of bone age comparisons. Here we have a lead that merits serious study.

Thanks are extended to Mr. Walter L. Whitmarsh, Chief X-Ray Technician, and Mr. Donald R. Clark, Photographer, at the Training School, for valued assistance.

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Mental Health Conference to be Held in Chicago

Personal immunity to certain mental and emotional disorders will be discussed by Dr. Jonas Salk at a national mental health conference in Chicago, Nov. 21-22.

Sponsored by the American Medical Association's Council on Mental Health, the two-day conference will be held at the Drake Hotel.

Dr. Salk, who is professor of experimental medicine and director of the Virus Research Laboratory at the University of Pittsburgh, will speak at a banquet Friday evening, Nov. 21.

His subject, "Analogies Between Immunologic and Psychologic Phenomena," will deal with certain similarities between the immunity to physical disease and that developed against mental illness.

Five round-table discussions will constitute the principle conference business. The participants will give particular attention to the relatively new concept of the communicability of mental and emotional illness.

Other round-table groups will consider mental retardation in school children, education for psychiatric medicine, and mental illness and health in the aged.

The conferees will also hear a progress report from the Joint Commission on Mental Illness and Health. The commission is a research and educational organization founded in 1955 by the Amerian Psychiatric Association and the A.M.A. with the cooperation of some 30 other groups to study the resources available for the detection, treatment, and rehabilitation of the mentally ill.

A.M.A. President Gunnar Gundersen, La Crosse, Wis., will also be a guest speaker at the meeting, which will be attended by mental health representatives of state medical societies.

Dr. Leo H. Bartemeier, Baltimore, chairman of the council, will be the presiding officer.

Staphylococcal Pneumonia—Clinical Experience With Ten Cases In Young Adults

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Staphylococcal pneumonia is not a new entity, either in the pediatric or adult age groups. Its incidence had diminished with the advent of antibiotics. However, with the increase in the number of staphylococcal strains resistant to antibiotics, and after the current influenza epidemics, the incidence, morbidity and mortality of this disease has increased. In a naval hospital, where the majority of patients are young adults, we have been particularly impressed by the frequent fulminating course of this infection in the previously healthy person.

CLINICAL PICTURE

The presenting symptoms and signs in ten fulminating cases seen at this hospital were somewhat variable. In each case the pneumonia was preceded by an upper respiratory infection which was manifested by the development of fever, cough, and rapid grunting respiration. In seven of the cases, the previous infection fitted the clinical picture of influenza. Cyanosis and prostration were unmistakable signs in the fatal cases. In these same cases the sputum contained variable amounts of blood. On physical examination, the findings ranged from rales and rhonchi, bilaterally and diffusely, to focal consolidation with flat percussion note, increase in vocal fremitus, resonance, and breath sounds. The breath sounds were diminished in the two cases with pleural effusions.

PATHOGENESIS

Staphylococcal pneumonia may be a primary respiratory infection. In such instances the organisms gain entrance via the respiratory tract. Rarely is it due to a hematogenous infection, the primary site being other than the lungs,[1] or to direct introduction of the organism into lung or pleural cavity as a result of surgery or trauma. Predisposing factors are virus infections and cystic fibrosis of the pancreas. Since these cases of pneumonia followed in the wake of the recent influenza outbreaks, a brief discussion of influenza is necessary.

The distinctive pathologic feature of the pandemic of 1918 was extensive destruction and metaplastic overgrowth of the respiratory epithelium.[2] In recent reports on current cases bacteriological and histological findings suggest that the hemorrhagic pneumonia may have been due primarily to the virus as staphylococci were not recovered.[3] It has been reported that some staphylococcal superinfections found in cases of influenza produced a severe disease, whereas others did not. It was also demonstrated that staphylococcal antitoxins (antistaph alpha hemolysins) were not present in the acute fulminating infections and was suggested that giving this may be of use in treatment.[4] Staphylococcal pneumonia usually is accompanied by much destruction of lung tissue. However, in some cases following influenza there may be little destruction. In such instances death is usually attributed to a toxemia. Preceding influenza often is not evident, but the histology is such as is found in patients who had one follow the other. Some workers feel that the presence of a quantity of serous fluid in the alveoli either mechanically or chemically predisposes to bacterial superinfection.[5] Thus, it is important not to depress the cough reflex but to try to prevent serous pockets in the alveoli which may be a predisposing factor.

LABORATORY AND ROENTGENOGRAPHIC FINDINGS

Polymorphonuclear leukocytosis is characteristic. The white count usually is elevated although it may be normal. There is usually a marked shift to the left in the differential count. In these ten cases the white blood count ranged from 5,950 in a fatal case, to 36,000 in one that recovered. Transient proteinuria was found in seven of the ten cases.

The x-ray findings may differ in each patient and undergo rapid changes during the course of the disease. Infiltrative lesions may be focal or diffuse, segmental or lobar. Later in the course of the disease, pleural effusions, empyema, pyopneumothorax and pulmonary pneumatocoeles may be formed. The latter, more commonly seen in children, are thin walled cyst-like cavities. They are of considerable diagnostic value being rarely seen in other types of pneumonia. They are thought to be caused by a "check valve" type of mechanism after a bronchial and peribronchial type of involvement.

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The opinions expressed are those of the author and do not necessarily reflect the views of the Department of the Navy.

PATHOLOGY

Diffuse necrotizing bronchitis and bronchiolitis, abscess formation and massive areas of hemorrhagic and edematous bronchopneumonia, often with pleural involvement, are usually found at post mortem.

DIAGNOSIS

The diagnosis must be made promptly. The patient should be treated as a staphylococcal pneumonia if the diagnosis is merely suspected even though not yet proven. Recovery of staphylococci from blood or pleural fluid is proof of infection. Recovery from nose and throat culture, particularly in almost pure cultures, is highly suggestive. Coagulase positive and hemolytic strains are considered to be most pathogenic. Staphylococcal infections elsewhere in the body, empyema, and pyopneumothorax, particularly in children, are highly suggestive. All of these ten cases grew out staphylococcus coagulase positive from the sputum; two had positive blood cultures; and three had foci of staphylococcal infection in other parts of the body.

TREATMENT

Since staphylococcal pneumonia can run such a fulminating and quickly fatal course, it is most important to try to establish the diagnosis as rapidly as possible. In the two fatal cases, prostration and shock appeared suddenly and quickly. In one case the patient went into shock while talking intelligently to nurses. Therefore, if the patient appears toxic, intravenous fluids should be started immediately before veins are collapsed. There may not be time later for cutdowns. These cases were treated daily with 6-21 million units of intravenous aqueous penicillin; two grams of chloromycetin; and two grams of streptomycin and dihydrostreptomycin.

A decade ago penicillin was a most effective drug. However, today the frequency of penicillin resistant strains is increasing. There have been reports of fulminating pneumonia caused by penicillin sensitive strains of staphylococcus aureus in which death occurred despite antibiotic and antitoxin therapy.[6] In a recent report of fifty-five hospital acquired staphylococcal infections in children, 92 per cent of the organisms were resistant to penicillin and 74 per cent to tetracycline. The best results were achieved through the use of chloramphenicol, bacitracin, novobiocin and erythromycin.[7] Until the results of sensitivity studies are available, treatment should be started with two bactericidal drugs such as penicillin and streptomycin. Some workers have found that the combination of erythromycin and chloramphenicol (two grams orally of each daily) has proven effective in controlling penicillin resistant infection. In very severe infections, bacitracin was added. In such cases it was given only for the first five to seven days in doses ranging from 75,000-100,000 units daily.[8] Staphylococci whose resistance to penicillin is greater than 0.15 u/ml produce penicillinase and are penicillin resistant for practical purposes. Novobiocin in doses of 50/mg/kilo/24 hours given every six hours have been used successfully in children.[9] Ristocetin A and B in ratios of 4:1, a material derived from a species of actinomycetes, known as nocardia lurida, given intravenously have caused subjective and objective improvements in patients with hospital acquired staphylococcal pneumonia.[10] Staphylomycin, a new antibiotic, has proved to be very effective in a series of fifty patients infected with M.pyogenes var. aureus, almost all of whom were resistant to the available antibiotics.[11] Thus far, no cross resistance has been found with other antibiotics except streptogramin.

Recently it has been repeatedly expressed that chemoprophylaxis not only did not reduce the micrococcal carrier rates but also that those strains isolated from treated groups were more resistant to antibiotics than those from controls.[12] Resistant strains have been found in non-hospital asymptomatic carriers who did not receive antibiotics for six months prior to study.[13] The hospital carrier rate today is very high. Countless numbers of hospital infections have been reported in patients whose throat cultures were negative on admission. In one case recently described, the patient underwent cardiac surgery with hypothermia and subsequently developed a fatal post-operative pneumonia. It was felt that hypothermia as well as surgery reduced the resistance of the body to infection. Cultures taken from all instruments, the anesthesiologist, and the surgical personnel were negative. The patient had a negative throat culture ten days pre-operatively. The authors felt the only possible explanation was that the patient became a carrier while in the hospital.[14] In one study it was found that the great majority of staphylococci which are resistant to penicillin are lysed by Group III staphylococcal bacteriophages.[15] This was a 1953-1954 study (Bellevue) and was completely different from the 1932-1948 study which was partly pre-antibiotic. Also pointed out in this study were that a negligible number of strains that showed resistance were present in cultures taken during the first three days in the hospital (strains brought to the hospital by the patient); that patients treated with tetracycline acquired hospital staphylococci most rapidly; and that the group of patients who received no antimicrobial therapy showed the lowest rate of acquisition of hospital staphylococci.

In some cases, antibiotics do not result in cure. Supplemental surgical drainage by a closed suction system has been curative in cases of patients with empyema and tension pneumothorax. These patients had previously showed failure to improve until adequate catheter drainage was obtained.[16] Antibiotics should be kept up after surgery.

In addition to the above, oxygen, sedatives, antipyretics, and blood transfusions for anemia, are all important. The use of adrenocortical hormones as a supportive measure has not been fully evaluated and should not be used routinely.[17]

ILLUSTRATIVE CASES

Case #1. E.O., a 36 year old white active duty Wave, was rushed to this hospital after she had become cyanotic and tachypneic. She stated that for the previous four days she had a cough, fever and muscle aches. She had been visiting her mother who had influenza. Previously her health was good. She did not have hemoptysis or chest pain. On admission, she presented as a thin, cyanotic, blond-complexioned female with respirations of 32, blood pressure of 128/70, pulse of 112, and temperature of 103.4° F. Coarse breath sounds and rales which were heard bilaterally, were more prevalent on the left. After cultures were taken, the patient was placed on 2.4 million units of aqueous penicillin, and streptomycin two grams daily. Suddenly, while talking to the nurse, she went into shock and had stertorous breathing. An intravenous could not be started. Wyamine did nothing to raise her blood pressure. She died in ten minutes after having been in the hospital five hours. Only one of two throat cultures showed staphylococci. Two blood cultures were negative. X-ray (portable) of the chest revealed extensive bilateral pneumonia. The white blood count was 10,000 with 90 per cent polymorphonuclear leukocytes. At postmortem, extensive lobular, confluent pneumonitis was found bilaterally with purulent exudate over the visceral pleura in the right lung. Hyperemia of the liver, spleen and kidney was seen. The adrenals had a normal amount of lipids in the cortex and medulla present on section. The heart blood grew out staphylococcus coagulase positive.

Case #2. M.S., a 16 year old white female, had a Cesarean section two months prior to admission to the hospital. She had complications of endometritis after the section and was treated with antibiotics. One week prior to admission, she developed a cold and mild cough. She had severe chest pains and dyspnea on the day prior to admission, and blood flecked sputum and cyanosis on the day of admission. On admission, the patient was a thin, cyanotic, markedly dyspneic female, who had a temperature of 103, blood pressure of 122/82, pulse of 132 and respirations of 44. She had marked diminution in respiratory movement, diffusely diminished breath sounds, and numerous rales and ronchi bilaterally. Two blood cultures and numerous sputum cultures grew out staphylococcus aureus coagulase positive. Her white blood count was 23,850, 82 per cent being polymorphonuclear leukocytes. Albuminuria initially was 200 mg. per cent and cleared on discharge. On admission, x-ray revealed bilateral pneumonia. Subsequently, x-rays showed a right lower lobe consolidation in addition to diffuse bilateral basal pneumonitis. Two weeks after entering the hospital pneumatocoeles developed in the region of the third rib anteriorly. The patient was immediately started on intravenous antibiotic therapy of 12 million units of penicillin. She received intra muscularly two grams of streptomycin, two grams of chlorampenicol and two grams of oral probenecid daily. The patient was afebrile after twelve days in the hospital and the antibiotics were tapered down. She was discharged after twenty-three days in the hospital. Upon discharge, her sputum grew out pseudomonas almost pure culture (which most probably was a cross infection from a case of "isolated" pseudomonas pneumonia) and staphylococcus coagulase negative. At this time her chest x-ray showed a resolving pneumonitis and a decrease in the size of the pneumatocoeles. Since the patient was most anxious to leave the hospital, she was placed on gantrisin, four grams daily, to which her sputum flora was sensitive. She was taken off this after two weeks at home. She did well, had a perfectly normal chest x-ray, and was asymptomatic thirty-one days after leaving the hospital and fifty-four days after admission.

SUMMARY

Recently there has been a greater incidence of staphylococcal pneumonia. This is due to the increased resistance of the organism to antibiotics as well as to the influenza epidemics.

Of the ten cases seen at this U.S. Naval Hospital, seven had influenza prior to the present infection. The signs and symptoms of pneumonia were variable but those with cyanosis, hemoptysis and prostration were all fulminating in their course.

The various interrelationships of influenza and staphylococci are mentioned. There is no doubt that the virus seems to lay the groundwork for subsequent staphylococcal infection because of its destruction of respiratory epithelium.

A polymorphonuclear leukocytosis with a shift to the left is common. X-ray findings change as the disease progresses. At first they are infiltrative. They may then result in consolidation, effusion, empyema, pyopneumothorax and pneumatocoeles. The latter are almost pathognomonic.

At autopsy, massive areas of hemorrhagic and edematous bronchopneumonia were seen.

The importance of prompt diagnosis is stressed. Positive blood and pleural fluid cultures are pathognomonic. Positive sputum cultures are highly suggestive. Treatment should be started immediately after obtaining cultures. Penicillin and streptomycin should be started prior to sensitivity results. In toxic patients, intravenous antibiotic therapy should be started immediately. In the cases cited, the patients received daily from 6-21 million units of penicillin intravenously and two grams of streptomycin and two grams of chloromycetin intramuscularly. The use of bacitracin and neomycin should be considered in the seriously ill. Several new antibiotics are mentioned. The increase in resistant strains seen in the patients receiving prophylactic and routine antibiotics is stressed. There is a definite place for closed surgical drainage in empyema and tension pneumothorax; as well as the use of oxygen for dyspnea; and blood transfusions for anemia. Although one of the two fatal cases showed moderate depletion of the lipids of the adrenal cortex, routine use of adrenal cortical hormones is not indicated.

Two cases are summarized to illustrate the various facets of staphylococcal pneumonia encountered.

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A.M.A. Clinical Session in Minneapolis December 2-5

Three thousand American physicians will meet Dec. 2-5 in Minneapolis for the American Medical Association's 12th clinical session.

Designed to help the family physician solve his daily practice problems, the meeting has been planned in cooperation with Minnesota physicians. General chairman of the meeting is Dr. O. L. Norman Nelson, Minneapolis, president of the Hennepin County Medical Society.

The scientific portion of the program will be held in the Minneapolis Auditorium, while the House of Delegates, the A.M.A. policy-making body, will meet at the Leamington Hotel, headquarters for the meeting.

There will be 100 scientific exhibits prepared by physicians, according to Thomas G. Hull, Ph.D., secretary of the A.M.A. Council on Scientific Assembly. Nearly 200 physicians will participate in lecture meetings, symposiums, and panel discussions on such subjects as neurology, cardiovascular disease, arthritis, orthopedics, and various other medical topics.

Toxoplasmosis

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"ALTHOUGH there can now be no doubt that toxoplasma can infect human beings, there is as yet no indication how frequent such infection is. The probability is that it is a relatively rare disease which is transmitted to man from a reservoir of infection in lower animals." Those words were written by Dr. Albert B. Sabin in 1941.[14] Today, seventeen years later, and despite numerous published reports, our knowledge of the disorders caused by toxoplasma is still very incomplete.

HISTORICAL

Toxoplasma gondii is a genus of protozoan parasites which was first observed in the gondi, a small North African rodent used as a laboratory animal at the Institute Pasteur, by Nicolle and Manceaux in 1908.[8] It was described independently in the same year by Splendore who isolated the organism from a rabbit in Brazil. Sabin and Olitsky, reporting in 1937, were the first to prove the existence of the organism in North America when they isolated and maintained for study a highly pathogenic strain from a guinea pig.[14]

Since its discovery in 1908 there have been reports of the natural occurrence of *Toxoplasma gondii* in a wide variety of animal species. Janku in 1923 described the first well authenticated case in a human being.[8] This was in Czechoslovakia and was an infant with hydrocephalus, unilateral microphthalmus, and bilateral chorioretinitis.[8] Wolf and Cowen in 1937 reported the first recognized instance of human infection in the United States.[8] This again was in an infant. The first proved case of adult toxoplasmosis was reported by Pinkerton and Weinman in 1940.[13] The clinical features in this case were obscured by a concomitant infection with *Bartonella bacilliformis* but in 1941 Pinkerton and Henderson reported two fatal cases in adults, uncomplicated by other diseases.[13] Since this time a number of other cases of human infection have been reported, with a high proportion of the cases occurring in infants.

The reporting by Sabin & Feldman in 1948 of a chemical test for toxoplasmosis, the methylene blue dye test, marked a new era in knowledge of the disease since it provided an aid to epidemiological studies of toxoplasmosis as well as to the diagnosis of clinical forms.[15]

CAUSATIVE ORGANISM

The organism *Toxoplasma gondii* is an obligate intracellular parasite capable of invading and multiplying in a wide variety of cell types.[11] It occurs in two forms, the proliferative form seen during the acute stage of infection, and the pseudocyst form which probably appears late in the subacute stage of infection and is the only form that persists in chronic infection.[11] Both forms are killed by drying and by low heat.[11] The proliferative form dies rapidly outside the host and in the carcass of dead animals while the pseudocyst may survive in dead tissues for up to two weeks or longer at refrigerator temperatures and is more resistant to digestion.[11] No form has been found which is capable of living for extended periods outside the cells of its numerous hosts.[11]

CLINICAL MANIFESTATIONS

Toxoplasma gondii has been described as the causative agent in a variety of clinical syndromes. It may occur in a congenital form usually manifested at birth or soon after by chorioretinitis, cerebral calcification, hydrocephalus or microcephalus, psychomotor retardation and convulsions.[4] Direct evidence of the antenatal inception of toxoplasmosis was first brought forth by Paige, Cowen and Wolf who reported a case of intrauterine hydrocephalus necessitating craniotomy for delivery.[8] Autopsy in this case showed advanced toxoplasmosis. Primary infection of the pregnant mother appears to be the most likely explanation of these congenital cases.[8] There seems to be no history of a mother transferring the disease in more than one pregnancy.

Another form of prenatal infection, perhaps occurring when the mother acquires her primary infection late in pregnancy, may be manifested after birth by fever, jaundice, rash, hepatomegaly, splenomegaly, xanthrochromic spinal fluid and convulsions.[4]

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Acquired infection in adults was described by Pinkerton and Henderson in 1941 as a severe rickettsiosis-like disease characterized by sudden onset, with chills, sustained fever, a maculo-papular eruption involving the entire body except the palms, soles and scalp, and pulmonary involvement with pneumonitis.[13] Death in these cases appeared to be due primarily to interference with respiratory function.[13] Meningeal and cerebral involvement was not striking.

Sabin in 1941 described two cases of acquired toxoplasmosis in boys 6 and 8 years of age.[14] They showed atypical encephalitis, the outstanding clinical features of which were generalized convulsions, fever, disorientation, pleocytosis without such signs of meningeal irritation as nuchal rigidity or Kernig's sign, and the absence of signs pointing to involvement of the cranial nerves.[14] One of Sabin's cases died 30 days after onset and the other recovered completely after the 10th day.

Another form of toxoplasma infection, assumed to be acquired, was reported in 1951 from Copenhagen by Siim.[16] Seven patients with fever, generalized lymphadenopathy, atypical lymphocytes and other features suggestive of infectious mononucleosis, all of whom had strong serological evidence of toxoplasmosis, were studied.[16] Siim, reporting again in 1956, indicated that, in his opinion, toxoplasmosis with lymphadenopathy as the main sign is the most frequent form of acquired toxoplasmosis.[17] He subdivides this form into 1. febrile lymphadenitis, in which a febrile illness is associated with the glandular enlargement, 2. a non-febrile form, in which no febrile illness is noted but enlargement of the glands is a presenting symptom, and 3. a sub-clinical form, in which lymphadenitis is discovered in the course of a routine examination.[17] The organism has been isolated by Siim from lymph nodes in all of these forms.[17]

Another common clinical syndrome associated with toxoplasma infection is chorioretinitis. Frenkel and Friedlander, in their 1951 publication, surmised that, in San Francisco at least, chorioretinitis is due to toxoplasmosis in somewhat less than 70 percent of such cases.[9] It was indicated that these patients contracted their infection in childhood.[9]

In spite of the numerous reports of disease associated with toxoplasmosis, it is probable that the majority of infections are asymptomatic. In a study by Feldman and Miller, reported in 1956, of 1,747 sera collected from people in various parts of the world, all from presumably healthy people, a total of 544, or 31 percent, showed serological evidence of infection by toxoplasma.[7]

LABORATORY DIAGNOSIS

Confirmation of the diagnosis in suspected cases of toxoplasmosis can usually be made in the laboratory. Isolation of the organism by animal inoculation or by culture is the most conclusive proof of the diagnosis. Isolations may be made from blood, bone marrow, cerebro-spinal fluid, biopsy material from lymph nodes and other organs, and occasionally from striated muscle tissue.[5] Animal inoculation is the most sensitive means of isolation, but tissue cultures and chick embryo cultures may be used.[5] If an organism morphologically similar to *Toxoplasma gondii* is isolated serological methods are used to identify it absolutely.

Presumptive diagnosis may sometimes be made by microscopic examination of tissue sections, but some authors consider it unsafe to diagnose toxoplasmosis on morphological grounds alone, especially when dealing with fixed tissue preparations.[17]

The diagnosis is, however, more often made by serologic tests. The methylene blue dye test, originated by Sabin & Feldman, is based on the observation that both the cytoplasm and the nucleus of *Toxoplasma gondii* when incubated with normal serum subsequently stain deeply with alkaline methylene blue, whereas, after exposure to antibody-containing sera, only the nuclear material takes the dye.[5] The dye test becomes positive early in the course of illness and usually reaches high levels by the end of the second week.[5] Dye test antibodies tend to persist in most individuals for a number of years, probably in excess of a decade, although in gradually decreasing titer.[5]

A complement fixation test for toxoplasmosis is also available, and has the advantage of not requiring the laboratory to maintain a strain of *Toxoplasma gondii*.[5] Complement fixing antibodies appear later in the course of the disease, rarely earlier than one month after infection, but disappear earlier.[5] A positive reaction, therefore, indicates relatively recent infection but a negative reaction does not rule out early infection or past contact with the organism.

Neutralization tests are now carried out chiefly in the final identification of organisms grown in tissue cultures.

While not strictly a laboratory procedure the use of toxoplasmin skin tests should be mentioned. These, first described by Frenkel, are useful aids in population surveys and as diagnostic aids late in the disease.[5] Patients with highly active disease do not usually possess dermal hypersensitivity and infants with congenital infection rarely give positive reactions before the age of 9 months.[5] A negative skin test therefore does not always imply the absence of antibodies. A positive reaction, on the other hand, is probably nearly always associated with some antibody.[5]

Various classifications of toxoplasma infections in humans have been proposed. That suggested by Frenkel and Friedlander includes the following stages of infection.[9]

First stage—A generalized acute infection; diagnosed by demonstration of the organism and by showing a rise in methylene—blue-dye-test and complement-fixing antibody titer; skin test negative.

Second stage—Characterized by subsidence of extraneural lesions but persistence and proliferation of toxoplasma in the brain and eye; antibodies and immunity high in extra-neural viscera but low in neuroectodermal derivatives.

Third stage—Diagnosed from the presence of a positive dye test of lower titer, a positive toxoplasmin test and a low or absent complement fixing antibody titer. There may or may not be a chronic persistence of toxoplasma pseudocysts in the central nervous system, eye, myocardium, skeletal muscle, and possibly elsewhere.

INCIDENCE AND DISTRIBUTION OF TOXOPLASMA INFECTIONS

Numerous serological surveys, of humans and of animals, have been performed in efforts to learn more about this interesting disease. In 1956, Morris, Aulisio and McGown reported that sera of 45 of 180 dogs and 20 of 107 wild rabbits tested showed complement fixing antibody at 1:8 dilution or greater.[12] Negative results were obtained in tests of sera of 8 domestic cats, 3 foxes, 12 marmots, 12 opossums, 14 pigeons, 14 raccoons, 64 Norway rats, 5 rice rats and 7 squirrels, all collected in the eastern United States.[12] Feldman and Miller, using the methylene blue dye test, found antibody titers of 1:16 or greater in cats, dogs, cattle, goats, sheep, swine, horses and laboratory rabbits and guinea pigs.[7] Variations were found in the incidence of reactors among animals of the same type from different geographic areas.

Feldman and Miller also collected sera from humans in various parts of the world. Using the methylene blue dye test and calling positive all those reacting at 1:16 or greater dilutions, their results ranged from no reactors found among 21 Eskimos tested, through an increasingly greater proportion of reactors found among Navajo Indians and the people of Iceland; Portland, Oregon; St. Louis, Missouri; New Orleans, Louisiana; Pittsburgh, Pennsylvania; Haiti and Honduras, to 82 reactors among 121 Tahitians.[7] Whether the differences are related to climate is uncertain but Jacobs in reviewing these data suggests that toxoplasma infection may be more prevalent in warm, moist areas than in cold or hot dry areas.[11]

The number of reactors found increases with age. Feldman and Miller found only 9 percent of those under four years of age to be reactors in their study while 38, or 39 percent, of people in the age groups above 30 years of age were reactors.[7] They, like other investigators, reported that although there are fewer reactors found in the younger age groups, these reactions are often at higher dilutions.[7]

The prevalence of antibodies against toxoplasma is about the same for both sexes, as determined by Gibson in a study in Tennessee.[10] He also determined that the prevalence of positive titers is essentially the same in comparable urban and rural populations, and points out that from an epidemiological standpoint, for an explanation of the transmission of this infection, we must look for factors common to both the urban and rural environment.[10]

Feldman & Miller from a study of the month of birth of 108 infants with congenital toxoplasmosis present evidence indicating that the infection probably can be acquired in any month or season of the year.[6]

The appearance of antibodies may in some cases of acquired toxoplasmosis be considerably delayed. In the well documented case of the glandular form of the disease in a laboratory worker reported by Brown and Jacobs the onset of the illness was on November 22, 1951.[3] A blood specimen collected a month later, on December 20, 1951, showed no reaction with the methylene blue dye test, but a specimen taken on January 11, 1952 was reactive at 1:1024 dilution.[3] Once acquired, however, antibodies tend to persist. Feldman and Miller feel that antibody remains detectable for many years, if not for life.[7] Stillerman in 1957 reported an acute encephalitic illness, believed to be an active congenital toxoplasma infection, in an infant whose dye test antibody titer increased four-fold in the first four months of life and then showed gradual and complete disappearance over a three year period.[19] He contrasts this, however, with information received in a personal communication from Eichenwald who observed 60 patients with congenital toxoplasmosis followed annually with serologic tests until at least seven years of age.[19] Only three of these children lost their dye test antibodies during this period, two at 5 years and one at 7 years of age.[19]

The grouping of clinically recognized cases of human toxoplasma infections seems important. The two cases reported by Pinkerton and Henderson in 1941 occurred in the same summer in St.

Louis; those reported by Sabin in 1941 developed symptoms of toxoplasmosis in adjacent localities within 10 days of each other; Zuelzer's patients reported in 1944 were born in Detroit a week apart; two reported by Frenkel and Friedlander were born on the same day in San Francisco, without any other cases being reported in the following 18 months from several hospitals in the same city.[9] These and other incidents cited by Frenkel and Friedlander might, in such an uncommonly observed disease, be interpreted as being indicative of minor epidemics of toxoplasmosis.[9]

TRANSMISSION OF THE DISEASE

Although it is usually assumed that man contracts toxoplasmosis from infected animals, there is little proof as yet of the exact mode of transmission. The probability of person-to-person transfer of the disease is slight, since the sera of most of the fathers of congenitally infected infants show no detectable antibody against toxoplasmosis.[6] That it is not simple contact with infected animals might be deduced from the report of Feldman and Miller who found that only 4 per cent of 236 Navajo Indians tested showed serologic evidence of infection, while 30 per cent of 23 of their dogs showed antibody.[7] Animal experiments have shown that mice fed on tissues containing the pseudocyst form of toxoplasma develop infections.[11] The source of toxoplasmosis in carnivores could conceivably be small animals serving as their prey, or infected meat from larger animals. Relating this to man, Weinman and Chandler, using serologic tests for trichinosis as a biologic marker for people who eat underdone pork, have found a higher incidence of toxoplasma antibodies in people with trichinosis than would be expected in the normal population.[20] They suggest, therefore, that the eating of infected meat may prove to be one of the important means whereby toxoplasmosis is contracted.[20] However, Jacobs mentions a serological survey of 46 specimens, mostly from people over 40 years of age and all vegetarians who had not eaten flesh for at least 20 years, showing 21.6 per cent positive at 1:16 or higher with the methylene blue dye test.[11] Five of these people showed titers of 1:256 or higher and Jacobs suggests that these high titers point to another means of acquiring toxoplasmosis than by ingesting meat.[11]

HUMAN TOXOPLASMOSIS IN CONNECTICUT

Although toxoplasmosis is not included among the diseases which must by sanitary code regulation be reported to the State Department of Health in Connecticut, the department has in various ways learned of a number of cases which have occurred in the state. Barnett, Lebhar and Longworth in 1952 reported a case occurring at the Norwalk Hospital.[1] This was an infant born June 1, 1951, weighing 1250 grams. The infant died at 11 hours, and, on autopsy, toxoplasma and pseudocysts were found in various organs. This was the child of a 28 year old woman who had five years earlier had a normal child and who one year later had a normal child. Blood from the mother one week after delivery of the infected child was positive at 1:4096 dilution with the methylene blue dye test.

Beckett and Flynn in 1953 reported two cases of congenital toxoplasmosis diagnosed at the Hartford Hospital.[2] One of these, Baby F, who died at 8 weeks of age and on whom the diagnosis was made on histological evidence, was born in another state and should not be considered a Connecticut case. The other, Baby P, born on July 29, 1951 at the Hartford Hospital, weighing 1710 grams, died at 13 hours. Toxoplasma pseudocysts were found in the placenta and in the infant's brain. The mother, a 33 year old woman who had previously had two normal children, two months after delivery had a methylene blue dye test positive at 1:16,384 and one and a half years later positive at 1:4096. An apparently normal full term infant born to this woman on December 12, 1952 showed a methylene blue dye test positive at birth at 1:4096 and five months later at 1:256.

A third Connecticut case was reported by Silver and Dixon in 1954.[18] This was M.V.H., born April 28, 1953 weighing 7 pounds 4 ounces. This child was admitted to the Grace-New Haven Community Hospital at the age of 5½ weeks because of lethargy, anorexia, and failure to gain weight. Hepatomegaly and splenomegaly were present. Chorioretinitis was not evident but bilateral pupillary membrane and left cataract were described. X-ray of the skull showed diffuse fine calcification. Atypical vasopressin-sensitive diabetes insipidus and marked eosinophilia were present. A marked increase in head circumference was noted in the 16 days preceding the child's death, which occurred at home on August 27, 1953. Permission for postmortem examination was refused, but serological evidence of toxoplasmosis had been obtained before death. Blood specimens taken early in July showed the methylene blue dye test positive at 1:4096 on the baby and 1:256 on his mother. In August the baby was positive at 1:65,356 and the mother at 1:16,384. The methylene blue dye test was reported negative in July on a 19 month old sibling of the patient.

A review of death certificates in the bureau of vital statistics of the state department of health revealed one death in Connecticut in addition to those reported in the literature in which the cause of death was recorded as toxoplasmosis. This child, S.D., was a full term female infant weighing 7 pounds 8 ounces, born November 15, 1951 in New London. During her short life she showed hydrocephalus, blindness and mental deficiency. She died August 22, 1955. The cause of death was recorded as hydrocephalus with convulsions, due to toxoplasmosis. Her mother was a 24 year old Connecticut woman who had two years earlier had a normal child. On September 28, 1955 this woman had a methylene blue dye test titer of 1:1024. A normal infant born to her on January 5, 1956 showed a toxoplasmosis complement fixing antibody titer of 1:10. The mother's toxoplasmosis complement fixation test was doubtful at the same time.

Two cases of toxoplasmosis are known to have been diagnosed on the basis of microscopic examination of tissues obtained at autopsy. In both cases it is probable that another disorder was the actual cause of death and that toxoplasmosis was only an incidental finding. In neither case was serological examination for toxoplasmosis done before death. These were a 43 year old white male with cirrhosis of the liver who died in 1954 ten years after the removal of a chromophobe adenoma of the pituitary and a 7 year old white male with leukemia who died in 1957.

In addition to the Connecticut cases of toxoplasmosis reported in the literature, revealed by a study of death certificates, or known to have been diagnosed at autopsy, a number of other diagnosed or suspected cases of toxoplasmosis have come to the attention of the state department of health through the laboratory.

Although serological tests for toxoplasmosis are not performed in the laboratory of the Connecticut State Department of Health such tests may be obtained in selected instances through the services of a collaborating laboratory. Specimens in these cases are submitted through the laboratory of the state department of health to the collaborating laboratory and reports are returned to the attending physician through the health department laboratory. Since 1952, blood specimens on more than 50 Connecticut residents showing a methylene blue dye test titer of 1:16 or greater have in this manner passed through the laboratory of the state department of health. On some of these patients no further information has been received by the department.

It is known, however, that 20 of the specimens on which a methylene blue dye test titer of 1:16 or greater was reported were related to cases of suspected congenital toxoplasmosis. In most of these cases information at hand in the records of the state department of health is insufficient to make a diagnosis. Five were in mothers showing low methylene blue titers (1:16 to 1:64) where no serology was done on the child. Three were in mothers with titers ranging from 1:16 to 1:1024 where the child's serology was reported negative. In two instances low titers (1:16 to 1:64) were obtained on both mother and child. Since these children did not show the typical stigmata of congenital toxoplasmosis, their titers may have represented passive transfer of antibody. Three other infants showing congenital abnormalities not typical of toxoplasmosis were reported as having methylene blue titers of 1:16 to 1:64. In these cases the mothers were not tested but this also may represent passive transfer of antibody.

A probable and three possible cases of congenital toxoplasmosis were included in the 20 reactive specimens in this group. The probable case was a child born in July, 1954 on whom the diagnosis of chorioretinitis was made at the age of six months. In July, 1957, both the child and his mother were reported to have methylene blue dye test titers of 1:1024. The possible cases include a boy born in 1940, who has chorioretinitis, mental retardation and a speech defect, whose methylene blue titer in 1955 was 1:64; a girl born in 1947, who has chorioretinitis, mental retardation and convulsions, whose titer in 1955 was 1:16; and a boy born in 1948, who has chorioretinitis, mental retardation and a speech defect, whose titer in 1954 was 1:256.

In 18 instances the specimens reported through the laboratory of the state department of health as showing methylene blue dye test titers of 1:16 or greater were submitted from patients with difficulties of vision but no other symptoms suggestive of toxoplasmosis. The diagnosis in these cases included 12 with chorioretinitis, 4 with uveitis, and one each with iridocyclitis and optic atrophy. The patients ranged in age from 13 to 57, and included 11 females and 7 males. In some instances the eye difficulty was of 10 or more years duration while in other cases it was recent in onset. In eight cases the specimens from these patients were reported as showing methylene blue dye test titers of 1:64 or less, while in ten cases the titer was reported as 1:256 or higher. The duration of symptoms bore little relation to the reported titer since one patient with acute chorioretinitis showed titers of 1:1024 three months after onset and 1:256 six months after onset while another with chorioretinitis of six months duration showed a titer of 1:64 and another with uveitis of ten years duration showed a titer of 1:2048.

In 3 instances the specimens reported through the laboratory as reactive were from people living in Connecticut who developed acute illnesses sug-

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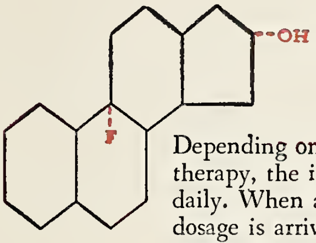

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gestive of toxoplasmosis. One of these was a three year old child hospitalized in September, 1952 because of headache, fever and vomiting. During his hospitalization papilledema developed, and six months later he was described as having chorioretinitis and had a methylene blue dye test titer of 1:64. It is interesting that at the time of his hospitalization his mother was said to have been suffering from acute iritis for the past six months. Another patient was a 40 year old woman who developed a febrile illness without localizing signs in July, 1957. This patient in October, 1957 had a methylene blue dye test titer of 1:256 and in April, 1958 a titer of 1:16. The third patient in this group was a 52 year old woman who in February, 1958 had an acute febrile upper respiratory illness with a transient generalized papular rash. In April, 1958, she developed chorioretinitis and in May, 1958 her methylene blue dye test was reported positive at 1:1024 dilution.

The remaining 5 patients whose specimens have been reported through the laboratory of the state department of health as reactive and on whom any information is available present a diversity of conditions. One was an 8 year old girl with chronic otitis media whose titer was 1:64. Another was a 14 year old boy with a personality disorder. He and his 11 year old sister who had no illness both had titers of 1:256. A 22 year old male with an illness diagnosed as probably due to Boecks's sarcoid had a titer of 1:256. Another was a 40 year old male, one of three family members who had respiratory illnesses soon after the death of their pet cat of an illness diagnosed histologically as toxoplasmosis. He was reported as having a methylene blue dye test titer of 1:32 while specimens from the rest of the family were non-reactive beyond a 1:1 dilution.

DISCUSSION

Although it has been known for 35 years that *Toxoplasma gondii* can infect human beings, the disorder has been considered somewhat rare. It is, however, probable that it is more common than has been recognized. A review of cases known to have occurred in Connecticut has been presented. Three cases of congenital toxoplasmosis in Connecticut have been reported in medical literature.[1,2,15] Congenital toxoplasmosis has been recorded on death certificates as the cause of death in one case in which there was confirmatory laboratory evidence. Two cases, probably of acquired toxoplasmosis, have been diagnosed on autopsy. Four other probable or possible cases of congenital toxoplasmosis have been recognized. Three cases which may represent acute acquired infections have occurred. Eighteen people with difficulties in vision, all of whom have had a methylene blue dye test titer of 1:16 or higher, have been identified. Even if we arbitrarily diagnose only those with a titer of 1:256 or higher as having toxoplasmosis, ten of these people should be so diagnosed.

Since mothers of infants with congenital toxoplasmosis must also be considered as having the disease, a total of at least 31 definite or possible cases of toxoplasmosis has been recognized in Connecticut since 1951. This is only slightly less than the number of cases of tetanus (35) or psittacosis (36) which have been reported in the same period and more than double the number of cases of diphtheria (13) which have occurred during this time. There should, therefore, be at least as high an index of suspicion for toxoplasmosis as for these diseases.

According to Siim, serum testing for toxoplasmosis is indicated when any of the following conditions exist:[17]

A. Fever of unknown origin
B. Lymphadenopathy
    Infectious mononucleosis (Paul-Bunnell test negative)
    Relative lymphocytosis
C. Encephalitis (with exanthema)
    Serous meningitis
D. Exanthematic diseases (typhus like)
E. Myocarditis
F. Chorioretinitis

The disease should also be considered in the differential diagnosis of all infants with cerebral calcifications, mental retardation, hydrocephalus or microcephalus, chorioretinitis, and convulsions. A thorough examination should be carried out when pregnant women show evidence of inexplicable fever, lymphadenopathy or fatigue, since detection of acquired toxoplasmosis in pregnancy is still the only possible way of preventing congenital toxoplasmosis. Physicians wishing to submit blood specimens for serological testing for toxoplasmosis should, however, contact the director of the bureau of laboratories of the state department of health before doing so, since certain restrictions on testing are applied by the collaborating laboratories performing the service.

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167th ANNUAL MEETING

CONNECTICUT STATE MEDICAL SOCIETY

APRIL 28, 29, 30, 1959

HAMDEN HIGH SCHOOL, HAMDEN

CONNECTICUT
MEDICINE

Owned and Published Monthly by
The Connecticut State Medical Society

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The "Ultimate Therapy" in Thrombo-Embolic Disease

We have not really solved the problem of thrombosis. Thrombo-embolism remains as one of the major causes of medical morbidity and mortality. We are in general aware of the factors responsible for thrombosis; vascular endothelial disease and injury; slowing of the regional circulation and increased coagulability of the blood. If thrombosis can be prevented then the seriousness of the atherosclerotic process would be greatly reduced. It is the final occlusion by a thrombus in any artery but especially the coronary or cerebral or renal artery that seriously jeopardizes the whole future of the victim. By contrast with arterial thrombosis in which the disease process makes itself known rapidly, venous thrombosis may be present for an appreciable period before making itself known through symptoms and signs. The diagnosis of thrombo-embolic disease is not always easy. There is no reliable laboratory test for the condition. At times a small pleural effusion may be the only evidence of even a large pulmonary embolus derived from a peripheral vein usually in the leg where the clot has been growing for many days.

What happens after a thrombus occurs? There is evidence that parts or all of many thrombi disappear because of endogenous fibrinolysis. However, the parts that are not lysed can increase in size and after several days gradually undergo fibrosis. Until the present, anti-coagulants have been extensively employed in thrombosis. However, anti-coagulant drugs do not provide a definitive answer to the problem. It is true that anti-coagulants hinder fibrin formation. In this way they may prevent extension of a thrombus or its recurrence. However, they do not cause the original thrombus to disappear. It remains and the organism is burdened with devising mechanisms to deal with the occlusive mass, mechanims which rarely act with sufficient speed or vigor to prevent tissue damage. All thrombi at their inception and for some days thereafter consist of a fibrin framework in which is enmeshed cellular elements. It would thus appear that any substance capable of exerting fibrinolytic effects within the vascular system should be capable of acutely dissolving thrombotic material. Add to this anti-coagulant therapy to prevent reformation of a thrombus and we come into possession of the ultimate therapy in thrombo-embolic disease.

The first fibrinolytic agent to attract attention was streptokinase a material in the filtrates of beta-hemolytic streptococcic cultures demonstrated in 1933 by Tillet and Garner.[1] Although streptokinase is frequently regarded as a fibrinolytic substance, it has no direct action on fibrin. However, streptokinase does act to convert prefibrinolysin into an active fibrinolytic enzyme fibrinolysin (plasmin). While it is true that normally human beings contain profibrinolysin in their plasma, injecting streptokinase into the blood in order to produce plasmin is not practical, first because many humans have circulating in their blood anti-streptokinase factors and second because of the serious risk of allergic and toxic reactions.

Trypsin has been explored as a fibrinolytic agent also. It not only can lyse fibrin directly, but it also can convert profibrinolysin into plasmin. However, its intravenous use has been very unpredictable as regards solution of fibrin clots in both animals and man and besides, its administration has been accompanied by widespread tissue proteolysis including potent action against many of the protein components of plasma including those necessary for blood coagulation.

When it became evident that both streptokinase and trypsin had many theoretical and practical limitations as thrombolytic agents, investigators turned to plasmin as a possible therapeutic agent. Plasmin has been known to be a constituent in the blood of both man and other mammalian species for over fifty years. Isolation of its precursor profibrinolysin was achieved from the globulin fractions of dried plasma proteins. Activation of this material to plasmin is readily achieved by small amounts of streptokinase, the excess of which can be removed. In this way plasmin has become available for investigational use and a number of important facts concerning its action in the body have become established. When given intravenously it becomes adsorbed to fibrin which now becomes the chief target of enzymatic activity. Because it selectively acts on fibrin, it effects fibrinolytic activity without attacking other proteins involved in the coagulative mechanism. Infusion of purified plasmin will consistently dissolve experimentally produced arterial and venous thrombi in the dog, rabbit and man.[2] As plasmin was made more pure by the removal of excess streptokinase, toxic reactions following intravenous administration became infrequent and minor.[2] It thus became possible that plasmin would turn out to be an ideal agent to produce rapid liquefaction of intravascular clots without undue toxic effects. Moser[3] has reported its use in 52 cases with various types of thrombo-embolic disease, involving deep and superficial veins and many arteries such as the cerebral, coronary, retinal, internal carotid and radials. The most common complication this investigator encountered was pyrogenicity which occurred in about 50 per cent of all cases. The degree of fever seemed to be related to the extent of thrombus involvement and this suggests that the febrile reaction is due as much to the products derived from the lysed clot as it was to the amount of plasmin employed. No hemorrhagic phenomena occurred in any patient even though they were also receiving anti-coagulation therapy at the same time to prevent reformation of the thrombus.

The problem, however, is more complicated than at first sight appears. Cliffton[4] and Ambrus[5] have each found that plasmin is highly successful in dissolving intravascular clot for as long as three days after its formation. Beyond this point, however, experimental thrombi appear relatively resistant to plasmin, perhaps because the fibrin becomes replaced by fibroblasts which do not react to plasmin. Thus even with so potent an agent as plasmin success or failure will depend on the probable structure of a clot at the time thrombolysis is attempted. This is more readily determined in arterial thrombosis than in venous thrombus and embolic disease.

Moser ends his paper on a note of both optimism and caution. "If the fibrinolytic agents are to be employed with maximum safety and benefit, therapeutic impatience must be tempered by sufficient scientific scepticism to delay widespread employment of these agents until an instructive body of controlled data can be accumulated."

We are at the threshold of a break-through in the prevention and cure of thrombo-embolic disease but the technique is not yet suitable for general clinical use. It is to be hoped that the availability of this material for general clinical use will not be long delayed.

L.H.N.

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Response of Renal Circulation to Pathological Disturbance

The kidney participates in vasomotor reflexes which act to preserve brain and heart blood pressure. Thus congestive cardiac failure, orthostatic hypotension, inhaled carbon dioxide, pain (the cold pressor test), fright, anxiety, unconscious psychic conflict, surgical operation, trauma (the renal crush syndrome), hemorrhage and shock, all dramatically reduce renal blood flow. Adrenalin and neural vaso-constriction are responsible.[1,2,3] In fainting (vaso-vagal syndrome), the kidney joins in the systemic vasodilation.

Nephrectomy, after transient effects, leaves the remaining normal kidney hypertrophied, particularly in patients under the age of thirty, with function and blood flow rising to reach about three-fourths of the normal for the two kidneys.[1]

In pyelonephritis, although blood flow per unit functioning kidney is near normal, the actual flow rate is reduced. Filtration falls less.

By contrast, chronic glomerular nephritis shows a fall in filtration fraction with plasma flow less affected per unit functioning tissue. Oliver has well described the anatomical changes, especially the development of abnormal non-filtering glomeruli, in Bright's disease.

The incidence of hypertension in pyelonephritis and glomerulonephritis does not correlate with a change in renal circulation. The elevated blood pressure does not appear to be compensatory in fact, increasing renal circulation, but it may be argued that, without hypertension, flow would have been reduced.

In hydronephrosis, renal flow falls but is not abolished.

Toxemia of pregnancy lowers filtration rate moderately with renal blood flow staying normal or rising slightly; reduction in filtration fraction is therefore the prominent finding.

In cardiac decompensation, renal blood flow is markedly reduced, perhaps halved, filtration falling somewhat less. The relative importance of elevated venous pressure, anoxia (the arteriovenous oxygen difference is increased), neurohumoral and humoral vasoconstriction is not yet elucidated. The current view of the role of the kidney in cardiac failure is that it retains salt and water because of excess of circulating hormone (aldosterone), not because of its lowered circulation.

Renal ischemia of severe degree develops in induced hypothermia. When long maintained, ischemia causes parenchymal damage.

The role of the kidney in essential hypertension continues to be a mystery. Restriction of blood flow by partial clamping of the renal arteries (many other related methods have been described) in animals causes a chronic hypertension, probably involving (angiotensinase-angiotensin) production, at least initially. The simple analogue in man is rare but has been demonstrated, as when a tumor partially occludes a renal artery.[1]

VEM is produced by the kidneys in this type of hypertension but its influence is soon neutralized by a concomitant rise in VDM and these substances are not the cause of the high blood pressure.[4]

In renal and in many cases of essential hypertension, there is no fall in blood flow through the kidneys. Of course, immediately after the constriction of a renal artery by a Goldblatt clamp, there is a fall, but the arteriolar vasodilation of autoregulation and the rise in systemic blood pressure soon provide normal renal blood flow and function. More commonly, in essential hypertension, both plasma flow and the effective secretory capacity of the kidney decline, the latter disproportionately less, so that a functional ischemia results.

Renoprival hypertension develops in nephrectomized dogs treated to prevent uremia. Again, the relation of this phenomenon to the many other observations it has stimulated and to essential hypertension itself is obscure. If the ureters are transplanted into the peritoneum so the kidneys secrete without actual excretion, hypertension is prevented. It would appear the normal kidney, irrespective of innervation and excretion, has a hypertension-reducing function. The kidney very likely plays an essential role in the development of what, in our ignorance, we call essential hypertension. It is also probable that some homeostatic mechanism related to kidney circulation is involved. Whether ischemia, lowered capillary pressure, reduced pulsation or some other intrarenal hemodynamic factor is the primary disturbance to which the elevation of systemic blood pressure is the homeostatic response can not yet be told.

H. L.

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Do As I Say, Not As I Do

Whether with patients or our own children, we have often been in the position of giving advice we are unwilling to follow. Is this hypocritical and wrong? Some of us soon reach a state of equanimity where we blandly advise others without remorse to do what we do not. Others among us give such advice apologetically, half-heartedly, perhaps even pointing to the conflict in ourself between conduct and advice. Few patients will follow such faint-hearted therapy. And then there are the embattled few who resolutely will not preach what they do not practice. Are they right and the rest of us wrong? In this quandary, what is the physician's moral obligation?

This question has become acute recently with the mounting evidence of the higher than average incidence of lung cancer and coronary artery sclerosis in male cigarette smokers. With a cigarette between our yellowed fingers, are we to urge our patients to lay his cigarette down? It is here that the siren voice of a few physicians and the tobacco industry comes to our aid. We need not face the moral quandary, they tell us, because lung cancer and cardio-vascular disease have not been proven to be caused by cigarette smoking.

The fact is that the siren song is true: a casual connection between these diseases and cigarette smoking has not been established. What is wrong with the song is its premise that a person is wise to continue a practice until there is conclusive evidence that it is harmful. Very few of our actions in life are based on certainty. We do not invest our money with certainty that it will yield a profit and be repaid with equivalent purchasing power. How many of our diagnoses and therapies are certain? What do you think of a physician who guarantees a cure? Our world is not based on certainty; it is based on probability. A physician is proud of himself if he has missed very few acute appendices and expects, in consequence, that some normal ones will have been removed. Appendiceal abscess with possible death is so serious a happenstance that we heavily weight our advice in favor of operation in suspected appendicitis. In more general terms, we can say that we *act so as to maximize the happy outcome of our therapy.*

As far as cigarette smoking is concerned, the statistics amassed by the American Cancer Society and others have lead the U. S. Public Health Service and the Society to reach an important conclusion. They consider the evidence provides a strong presumption that cigarette smoking is an important factor in the incidence of lung cancer. The evidence for its importance in coronary arteriosclerosis is not quite so strong, but the numbers involved, because of the high incidence of the disease, are very large.

A strong presumption is not proof. Whether to act on presumption involves adherence to the principle we have already stated: to maximize the happy outcome of our professional advice. For example, a patient with multiple sclerosis who finds solace in smoking would hardly be advised to give it up: the value to his welfare in smoking very probably outweighs its possible remote ill-effects. On the other hand, few among us would hesitate, even with a cigarette dangling from our yellow-stained fingers, to urge a young man to give up cigarettes when his identical twin had just been found to have a bronchogenic carcinoma.

Our duty to our patient is unrelated to any need to practice what we preach. Hypocrisy arises only with purposeful dissimulation. The doctor need not pretend to greater wisdom than he possesses in ordering his personal habits. Like the rest of humanity, his spirit may be willing but his flesh weak. But his own personal vulnerability should not lead him professionally to accept sophist arguments and thereby to avoid warning his patients that they incur a serious risk in smoking cigarettes.

H. L.

Central Repository For Medical Credentials

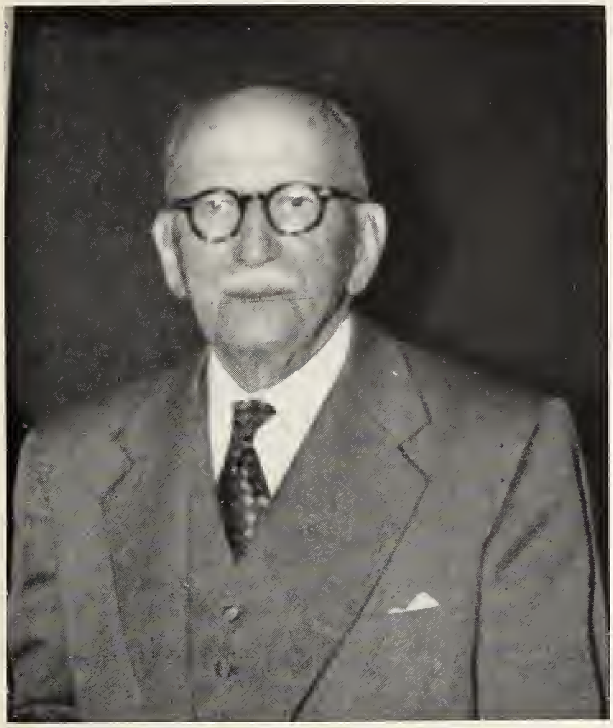
On July 1, 1958, the services of a "Central Repository for Medical Credentials" became available to doctors of the world. During war and national uprisings, medical records are often lost or destroyed. Because of this, many doctors are today unable to utilize their professional skills because of the loss or destruction of their original credentials and a lack of a protective service in which authenticated copies could be deposited. Therefore, The World Medical Association has undertaken a program to assure that the doctor will always be able to prove himself medically trained and fully accredited to practice medicine.

In the United States, the lifetime cost of the service on a one-payment basis to the newly graduated doctor is approximately $60.00. An actuarial schedule has been established for doctors in the various age groups. A 10-year service rate is also available.

Respository officials suggest that the credentials deposited include official medical school record, medical diploma, and specialist credentials. American doctors should *not send* their original credentials, but should send photostatic, microfilm, or notarized copies of their original credentials.

Requests for forms and additional information in regard to the Central Repository for Medical Credentials is available from The World Medical Association, 10 Columbus Circle, New York 19, New York.

OBITUARY



ANDREW C. SWENSON, M.D.
1870 — 1958

Dr. Andrew Clay Swenson, Middlebury, a member of Waterbury Hospital's honorary staff, died last month at this hospital. He was one of the oldest members of the medical staff, and had served on the staff here for 45 years. At one time, he was medical examiner for the town of Middlebury.

The Waterbury Hospital Medical staff lost one of its highly respected senior members on July 19, 1958, when death came to Dr. Andrew Clay Swenson after a long illness. Dr. Swenson was born in Sweden on September 29, 1870. He graduated from Cheshire Academy in 1898, and received his medical degree from Yale School of Medicine in 1902. He interned at the New Haven Hospital from 1902 to 1903, and received his license to practice in the same year. He did postgraduate work at the Jacob's Clinic in Berlin in 1907, at the New York Postgraduate Medical School in 1909, and at the Harvard School of Medicine in 1911.

Dr. Swenson received the appointment of urologist at the Waterbury Hospital on November 28, 1913, and continued to serve in that capacity until advancing years made it necessary for him to give up his more active participation in the medical work of the hospital. Dr. Swenson served as president of the medical staff in 1920. At the time of his death he was a member of the honorary staff. Dr. Swenson was held in high esteem by the medical staff of the Waterbury Hospital, and his familiar figure will be greatly missed.

Dr. Swenson's many friends at Waterbury Hospital extend to Mrs. Swenson and other members of his family our heartfelt condolences.

—Arthur H. Jackson, M.D.

IN MEMORIAM

DAY, KENNETH K.—New London; Boston University School of Medicine, 1928; assistant chief anesthesiologist at Lawrence Memorial Hospital since July 1957, previously practiced in Malden, Massachusetts, died suddenly September 29 at the Lawrence Memorial Hospital, aged 57.

GANCHER, JACOB I.—Waterbury; Long Island College Hospital, 1906; one of founders of Doctors Clinic for People Past 50 in Waterbury; member of original staff of St. Mary's Hospital, 1908; died September 16 at Waterbury Hospital after brief illness, aged 76.

GANEY, JOSEPH M., SR.—Waterford; University of Maryland Medical School, 1904; medical examiner in Waterford for 15 years, health director and school physician for 25 years, member of Public Health Council, State Health Department—1933; U.S. Public Health Service from 1920-46 as quarantine officer Port of New London; honored by State Medical Society April 1956 in recognition of 50 years service; died September 9 in Preston, age 79, of a heart condition which forced him into semi-retirement about 8 years ago.

MANWARING, IER J.—Norwich; Women's Medical College of Pennsylvania, 1895; began medical practice year of graduation but was interrupted by World War I when she served 14 months in a division of the French army; resumed practice here until 1930 when she retired to raise prize winning sheep; died after a lengthy illness in the W. W. Backus Hospital, October 3, aged 86.

MEEKER, D. OLAN—Riverside; University of Rochester, 1929; assistant attending surgeon at Greenwich Hospital and consultant in proctology at Nathaniel Witherell Hospital, member of AMA Committee on Legislation, representing the New England States and was in charge of the Committee on Healing Arts for New England; member of Fire Fighters Local No. 1042; died suddenly of a heart attack in Pleasantville, New York, September 13, aged 57.

SUNDERLAND, PAUL U.—Danbury; New York Medical College, 1894; known as a family doctor throughout Danbury; honored by the State Medical Society in April 1957 as a 50 year member; limited practice during past years due to failing health; died Oct. 9 at his residence, aged 89.

HITCHINS, CLAYTON S., JR.—New Haven; Cornell University Medical School, 1938; resident and former chief of Grace Hospital before becoming attending physician in the obstetrics department at Grace-New Haven Community Hospital. He gained prominence as a stamp collector, received several awards for his collection and was a director of the New Haven Philatelic Society. Died October 14 at Grace-New Haven Hospital, aged 46, following a brief illness.

Connecticut State Medical Society

CALL
SEMI-ANNUAL MEETING HOUSE OF DELEGATES

The 1958 Semi-Annual Meeting of the House of Delegates will be held in the Hotel Bond, Hartford, on Thursday, December 11, commencing at 2:00 P.M. in the afternoon.

Walter I. Russell, President
William R. Richards, Executive Secretary

INTRODUCTION OF RESOLUTIONS

Article VII, Section 4 of the By-Laws of the Society provides:

Par. 1. All resolutions to be introduced before the House of Delegates at an annual, semi-annual, or special meeting, except resolutions and recommendations from the Council and resolutions and recommendations that may be contained in committee reports, shall be delivered to the Executive Secretary in time for publication in the official agenda for the meeting at which action is to be taken.

Par. 2. Resolutions and recommendations to be introduced before the House of Delegates at an annual, semi-annual, or special meeting by the Council and recommendations that may be contained in reports of standing or special committees of the Society shall be published in the official agenda for the meeting at which action is to be taken. The official agenda shall be distributed to the members of the House of Delegates at the earliest possible date preceding the meeting.

Par. 3. Resolutions and recommendations which do not meet the requirements of paragraphs 1 and 2 of Section 4 of this article may be accepted for action by a session of the House of Delegates by a majority vote of the delegates present. Such resolution and recommendations shall be referred at once by the presiding officer to reference committees appointed by him from the membership of the House. These reference committees shall consider the resolutions and recommendations referred to them and shall report, with recommendations, to the House before adjournment of the session.

PROPOSED AMENDMENT TO THE BY-LAWS

The Council recommends the following amendment to the By-Laws relating to the composition of the Committee on Mental Health.

Article X, Section 3, Paragraph 13, shall read:

"The term of office for members of the Committee on Mental Health shall be for four years. Beginning with the annual meeting of 1959, the Nominating Committee shall nominate to the House of Delegates a Committee on Mental Health which shall consist of not more than eight members, of whom two members shall serve one year, two members shall serve two years, two members shall serve three years and two members shall serve four years. Thereafter, at each annual meeting of the House of Delegates, two new members shall be nominated to the Committee to serve four years to replace the two members whose term expires.

The Nominating Committee shall nominate the Chairman of the Committee on Mental Health.

The Committee shall be continually informed concerning the provisions for the care of the mentally ill in the state and those addicted to the use of habit-forming drugs and alcohol with the purpose of making information on these subjects available to the members of the Society, and if indicated, to recommend and support legislation for the improvement of the care of the persons in this state so afflicted."

Meetings

November 5—Connecticut Clinical Congress. Hotel Statler, Hartford.

November 10—Annual Forum of Bridgeport Branch, American Cancer Society. Ritz Ballroom, Fairfield Avenue, Bridgeport.

November 13—Connecticut Trudeau Society. Gaylord Farms, Wallingford.

November 20—CEA-Winslow Lecture. Brady Auditorium. New Haven.

December 2-5—American Medical Association. Clinical Session. Minneapolis, Minnesota.

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COUNCIL MEETING

Thursday, September 18, 1958—4:00 P. M.

A regular monthly meeting of the Council was called to order by the Chairman, Dr. Feeney, at 4:00 P.M. on Thursday, September 18, 1958. Present in addition to the Chairman were Doctors Russell, Weise, Polito, Richards, Gallivan, Weld, Scully, Davis, Gens, Clarke, Kennedy, Buckley, Eddy, Blodinger, Gardner, Rentsch and Gilman. Absent were Doctors Monahan, Carter, Archambault, Schiavetti, Ottenheimer, Seigle, Grendon, Starr and Hughes.

RECONSIDERATION OF APPROPRIATION FOR MAILING "ADOPTION IN CONN." A letter from Dr. T. Stewart Hamilton, the Society's representative to a committee of the Child Welfare Association, was read to the Council for information. Dr. Hamilton explained the obligation of the Society to pay for the distribution to the members of the Society of a folder on the new Adoption Laws.

In consideration of this apparent obligation, it was first VOTED to rescind the Council's action of August 14, 1958, disapproving an appropriation to cover the cost of this mailing, and it was then VOTED to appropriate the sum of $175 for this purpose.

APPOINTMENT OF A RADIOLOGIST TO THE COMMITTEE ON HOSPITALS. In response to a request from the Committee on Hospitals that the Council appoint a Radiologist to serve on that Committee, it was VOTED to appoint Dr. William G. H. Dobbs of Torrington to fill this vacancy.

RECONSIDERATION FOR PLAN TO PUBLISH ROSTER. After considerable discussion of the need for and manner of publication of the Roster of Members, it was VOTED to rescind all actions of the Council taken in this regard on August 14, 1958 and it was further VOTED that the Chairman of the Council appoint a committee to consider this problem and to present its recommendations to the Council prior to the meeting of the House of Delegates. The Committee was appointed as follows: Maxon H. Eddy, Bridgeport; William R. Richards, Chairman, New Haven; Stewart P. Seigle, Hartford.

REPORT OF COUNCIL SUB-COMMITTEE RE JOURNAL. (A) Dr. Polito, Chairman of the Council Sub-committee to Study Journal Finances, announced that a quorum had again not been present at the meeting of September 18, 1958, and therefore he could submit no report.

(B) Voicing regret that the Managing Editor of the Journal was not present, the Council engaged in an extensive discussion of the format, the policies and the new name of the JOURNAL. There was general agreement that the new format was both interesting and attractive, but there was also general agreement that the deletion of several sections such as the Secretary's Office, the Public Relations Section, etc. had created certain difficulties in regard to the dissemination of important general information to the membership of the Society.

Consideration was then given to the question of whether or not the change in the name of the publication from "The Connecticut State Medical Journal" to "Connecticut Medicine" was proper under existing by-laws. After reviewing the By-laws and pertinent House of Delegates actions, it was felt that such a change did not appear to be proper.

It was VOTED, therefore, that on behalf of the Council, the Executive Secretary instruct the Managing Editor and the Editorial Board to restore the name "Connecticut State Medical Journal" unless and until the by-laws are changed to authorize and provide for a new name for the JOURNAL.

It was also VOTED that the Managing Editor and Literary Editor be informed of the sense of these discussions of the Council on this date and that they be requested to appear at the next meeting of the Council.

MEDICARE. Dr. Clarke gave a brief resume of some of the curtailments of the MEDICARE Program both as to elective surgical procedures, free choice of civilian or military medical care, etc. Dr. Clarke expressed hope that the members would find the completed fee schedule and renegotiated contract informative. This document is being printed now and should be ready for distribution shortly.

APPOINTMENT OF BUDGET COMMITTEE. It was VOTED that the Chairman of the Council appoint a Budget Committee for 1959. Dr. Feeney appointed the following members to this committee: Dr. Polito, Chairman, Dr. Richards, Dr. Scully, Dr. Kennedy, Dr. Blodinger.

ADVISORY COMMITTEE ON FOOD AND DRUGS. It was VOTED to recommend to the Budget Committee that an annual allotment of $75 be appropriated to the Advisory Committee on Food and Drugs and that this amount be paid in a lump sum to the Committee treasurer as the Society's contribution for its share of expenses in this joint enterprise.

REPLACEMENT FOR COMMITTEE TO CONTINUE TO STUDY PREPAYMENT PLANS. It was VOTED to appoint John F. Hughes, Somers, to represent Tolland County on the Special Committee to Study Prepayment Plans to replace Dr. Schiavetti.

STATE ADVISORY COMMITTEE ON HOSPITAL LICENSING. It was VOTED to reappoint Dr. Christie McLeod, Middletown, to the Advisory Committee on Hospital Licensing for a five year term starting October 1, 1958.

SPENCE-CHAPIN AWARD. It was VOTED to refer the matter of nominating an outstanding woman physician under 35 years of age as a candidate for the Spence-Chapin award for distinguished service to children, to the Hezekiah Beardsley Pediatric Club for recommendation, and that the Council accept the nominee, if any, of that organization.

DISCHARGE OF COMMITTEES. (A) It was VOTED to discharge the Sub-committee re Retirement of Dr. Barker.

(B) It was VOTED to discharge the Sub-committee to Study Prepayment Plans and to officially appoint its members to the Special Committee to Study Prepayment Plans (House of Delegates, July 22, 1958).

(C) Dr. Russell, President of the Society, moved to dismiss the President's Committee on CMS and it was so VOTED.

(D) Dr. Polito moved to dismiss the Sub-committee on Journal Finances of which he was Chairman and it was so VOTED.

ACTION ON COMMITTEE ON THIRD PARTY PAYMENTS' REVISED REPORT. It was VOTED that the recommendation in Section VIII be disapproved and that the Committee on Third Party Payments be apprised of the feeling of the Council that there is no valid reason why checks in payment should not be made out directly to the physician performing a service.

CMS. The recent and current public statements of Dr. Thomas Danaher, resigned President of Connecticut Medical Service, Inc., were brought to the attention of the Council. Although there were several expressions of doubt as to the veracity, wisdom and propriety of Dr. Danaher's' statements, it was felt that any official Council action was not only unnecessary but also undesirable at this time.

The CMS Resolution, dated August 28, 1958, which the Chairman of the Council had accepted as complying with the motion of the House of Delegates of July 22, 1958 was reviewed. It was VOTED unanimously to approve the action of the Chairman in this regard. The resolution is as follows:

CONNECTICUT MEDICAL SERVICE, INC.
SPONSORED BY THE CONNECTICUT STATE MEDICAL SOCIETY

New Haven 9, Connecticut
August 28, 1958

Thomas M. Feeney, M.D.
Chairman of the Council
Connecticut State Medical Society
160 St. Ronan Street
New Haven, Connecticut

I, the undersigned, do HEREBY CERTIFY that the following is a true and correct copy of a certain Resolution duly adopted on August 27, 1958 by the members of the Corporation of Connecticut Medical Service, Inc.:

RESOLVED: To amend Article I and Article III, Section 1, of the By-Laws of Connecticut Medical Service, Inc., to read as follows:

ARTICLE I—MEMBERS

There shall be twelve members of the Corporation, of whom six shall be Participating Physicians nominated by the Council of the Connecticut State Medical Society, and six shall be laymen nominated by a Nominating Committee appointed by the President of the Corporation.

Members shall be nominated for three-year terms of office, staggered so that the terms of two physician members and two lay members will expire at each Annual Meeting. The Board of Directors shall determine that the terms of two physician members and two lay members presently serving, terminate at the Annual Meeting in 1959, and a like number in 1960 and 1961.

The Council of the State Medical Society may, at any time, obtain the resignation of any future physician Director, provided this action be taken for stated cause and that it be supported by at least two-thirds of the entire membership of the Council. This provision shall not apply to present physician Directors during the terms fixed under the previous paragraph.

Upon the death or resignation of any member of the Corporation, a vacancy shall be deemed to exist, and shall be filled upon nomination of the Council of the Connecticut State Medical Society, if such vacancy is that of a physician member, or on nomination of the Nominating Committee and election by the Corporation, if such vacancy is of a lay member.

ARTICLE III—BOARD OF DIRECTORS

SECTION 1. The control of the business and the affairs of the Corporation shall be in a Board of Directors, which shall consist of the members of the Corporation, subject to the nominating, electing and retirement provisions of Article I.

IN WITNESS WHEREOF, I have hereunto subscribed my name and affixed the seal of this Corporation, this 28th day of August, 1958.

R. S. JUDD, *Chairman*
Board of Directors

Dr. Feeney reported an informal meeting between himself, Mr. Castellucci of Blue Shield, Mr. Judd and Mr. Doolittle of the CMS Board held a week ago. He received assurances that there would be no sale or development for sale of any CMS contract without prior clearance with the Connecticut State Medical Society. It is believed that Mr. Castellucci will be in New Haven on October 3, 1958 and it is planned tentatively to hold a joint meeting of the sub-committees of the Society and the CMS Board on that date. In addition to resuming negotiations, it had been suggested that the sub-committees act as a liaison group between the Council and the Board.

At the request of Dr. Weise, Chairman of the Special Committee to Study Prepayment Plans, it was VOTED to grant that committee an indefinite extension of the sixty day period allowed by the House of Delegates on July 22, 1958 for the purpose of developing a functional prepayment plan for the Society. Dr. Weise presented a progress report which follows:

Report To The Council Of
The Special Committee To Continue To Study
Prepayment Plans—September 18, 1958

Mr. Chairman, The Special Committee to Continue to Study Prepayment Plans, whose composition was completed on August 14, 1958, held its first meeting at the Connecticut State Medical Society Building on August 27, 1958.

There was considerable general discussion which included the historic background and the similarity of problems which confronted previous committees set up for somewhat corresponding purposes in the study of plans for the prepayment for physicians' services.

Blue Shield plans and plans which might be offered through the insurance industry by a voluntary competitive health insurance system were discussed. A desire was expressed by the committee members to learn more about "Fee Guides" as compared to rigid "Fee Schedules" and also to evaluate the possible adaptation of the "Relative Value Scales" to either of these.

The committee also agreed to request additional information from the insurance industry.

Consequently, the committee held its second meeting on September 13, 1958 with representatives of the insurance industry (Health Insurance Council, Aetna, Travelers, Connecticut General, Equitable Life).

The discussion at first was general in nature and reviewed the insurance industry's interpretation of many of the facets discussed among ourselves at the first meeting.

Later several types of plans were discussed but primary consideration was given to base plans. It was suggested that discussion as to other types of insurance coverage be made only when necessary to clarify the area, scope and limitations of the base plans.

Subsequently specific questions were put to the representatives of the insurance industry. Their replies were both informative and encouraging. Additional co-operation in this study will be forthcoming from the Health Insurance Council.

The committee requests your patience and indulgence, Mr. Chairman, and, in view of the extensive and highly complex nature of this study, we would therefore request that you extend the time allotted to us to complete this work.

Respectfully submitted,

Ellwood C. Weise, Sr., m.d.

ELECTION OF STUDENT MEMBER. It was VOTED unanimously to elect Thomas J. O'Neil, Fairfield; New York Medical College—1960; Pre-Med—University of Connecticut; Parent—William L. O'Neil; to student membership.

APPOINTMENT TO COMMITTEE ON MEDICAL EDUCATION AND LICENSURE. A letter from Dr. John D. Booth, Chairman of the Committee on Medical Education and Licensure, was read to the Council. The meaning of Dr. Booth's letter was that he and the members of his committee favored the nomination of a pediatrician to the Governor for appointment to the Medical Examining Board. It was VOTED to send Dr. Booth a copy of the Council's action on a similar request (August 14, 1958) and to reaffirm to Dr. Booth that the Council had no authority to reverse an action of the House of Delegates.

ALLOTMENT TO PUBLIC HEALTH COMMITTEE FOR SUB-COMMITTEE ON SCHOOL HEALTH. A request was received from the Committee on Public Health for reconsideration of appropriation for the purpose of publishing the transactions of the Second School Health Conference. (Acted on August 14, 1958.) It was VOTED to table action on this matter.

APPOINTMENT TO GOVERNOR'S COMMITTEE ON CHILDREN AND YOUTH. Upon request from the State Department of Health for an appointment to the Governor's Committee on Children and Youth, it was VOTED to appoint Dr. Morris Wessel, Pediatrician, New Haven, to represent the Society on this committee.

NEW LOCATION FOR SEMI-ANNUAL MEETING OF HOUSE OF DELEGATES, DECEMBER 11, 1958. A letter from the Hartford Medical Society was read which indicated disapproval of the Society's request to hold the semi-annual meeting of the House of Delegates at the Hunt Memorial Building, Hartford. It was then VOTED to hold this meeting at the Hotel Statler, Hartford, first choice; or the Hotel Bond, Hartford, second choice. In the event that neither of these sites could be obtained, it was VOTED to empower the Chairman of the Council to make whatever other arrangement he felt best.

APPOINTMENT OF A SUB-COMMITTEE TO STUDY AND REVISE BY-LAWS. It was VOTED that the Chairman appoint a subcommittee for this purpose. The following sub-committee was appointed: John P. Gens, Norwalk, Chairman, Michael R. Scully, Bridgeport and Harold M. Clarke, New Britain.

DATE FOR NEXT MEETING. The date for the next meeting of the Council is set for Wednesday, October 29, 1958.

The meeting adjourned at 6:45 P.M.

William R. Richards, m.d., *Executive Secretary*
Thomas M. Feeney, m.d., *Chairman of the Council*

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Correspondence

To the Editor:

Physicians often need help with the job of instructing patients in diet problems. The American Heart Association has tried to meet the needs of the physician who is interested in teaching his patients to live on a low sodium diet. It has prepared three booklets which are available to physicians and patients through the various local offices of the Heart Association.

The booklets, three in number, have been prepared by the Sub-committee on Sodium Restricted Diets of the American Heart Association. One booklet is for patients requiring only mild restriction in sodium; one is for those patients whose sodium restriction should be moderate, approximately 1000 mgm. a day (equivalent to 2.5 gm. of salt); and one is for those whose sodium must be limited to 500 miligrams a day. A statement prepared for physicians by Herbert Pollack, M.D., Chairman of the Heart Association's Committee on Nutrition accompanies the booklets as an insert, and contains useful hints for using the booklets. All physicians who have the opportunity of teaching patients low sodium diets should welcome these booklets.

The level of sodium restriction which is desired by the physician for the treatment of the edematous cardiac may vary from 500 mgm. or less per day to as high as 2000 mgm., and for his maintenance in the edema free state there may be warrant for a more liberal diet such as is described in the booklet called "Your Mild Sodium Restricted Diet". The level of dietary sodium for the hypertensive patient, to be effective, must certainly be at the lower limit provided in these booklets and perhaps even lower. For patients who are in water balance and free from renal failure there is little danger of significant salt loss. In patients who need repeated administration of diuretics or are unable to excrete diluted urine because of renal insufficiency, dangerous sodium depletion may occur. In spite of popular notions, this will happen seldom in other cases even in unusually hot weather and after vigorous physical exertion.

In his message to physicians, Dr. Pollack notes "Your patient may get a copy of the appropriate sodium restricted diet booklet from the local Heart Association on your prescription or request only. If you would like to have a supply of the booklets on hand, contact the Heart Association in your area. Specify the level of sodium restriction, strict, moderate, or mild".

John C. White, m.d.,
for Education Committee,
Connecticut Heart Association

NEW MEMBERS

Fairfield County Medical Association

Henry Fogelman, Stamford
Guido R. Gianfranceschi, Danbury
Myles C. Goehausen, Westport
Alvin Goldman, Danbury
Irvin J. Leven, Danbury
Alvin Lichtman, South Norwalk
George B. M. Lornie, Long Hill, Fairfield
Robert P. Ragusa, Stratford
James W. Rutherford, New Canaan
Salvatore M. Santella, Bridgeport
Raphael D. Schwartz, Danbury
Bernard J. Sherlip, Trumbull
Jack G. Shiller, Westport
Lambros E. Siderides, Stamford
David Silvert, Danbury
Joe W. Trent, Stamford
Harold C. Walker, South Norwalk
Norman Weinstein, Bridgeport

Hartford County Medical Association

John X. Basile, Hartford
Aldo L. Bellucci, East Hartford
Russell S. Bower, New Britain
John A. Britting, Jr., Bloomfield
Christian E. A. Creteur, Hartford
George R. Dalton, Hartford
John H. Felber, Hartford
Egidio A. Fulchiero, Hartford
John W. Geoghegan, Hartford
Herbert L. Glass, Bristol
Paul N. Graffagnino, Hartford
Ralph W. Haswell, Hartford
John M. Hill, New Britain
Desmond M. McGann, Wapping
Robert W. Painter, Hartford
Richard D. Pullen, Windsor
Wayne D. Ross, Hartford
Sagar D. Sikand, Bristol
James A. Smith, Hartford
John A. Vecchiolla, Hartford
Jacob Wachtel, Bristol
David E. Whitehead, Hartford
Homer C. Wick, Jr., Hartford
Harry T. Wood, Jr., West Hartford

Litchfield County Medical Association

Howard D. Dorfman, Sharon
David R. Hays, Jr., Kent
John E. Sutton, Washington
Rodney T. Wood, Norfolk

Middlesex County Medical Association

Samuel J. Cornett, Cromwell
Juan Pella, Middletown
Charles A. Robbins, Middletown

New London County Medical Association

Christopher C. Glenney, Norwich
Herbert R. Kuhn, Jr., New London
Richard J. Moore, Norwich

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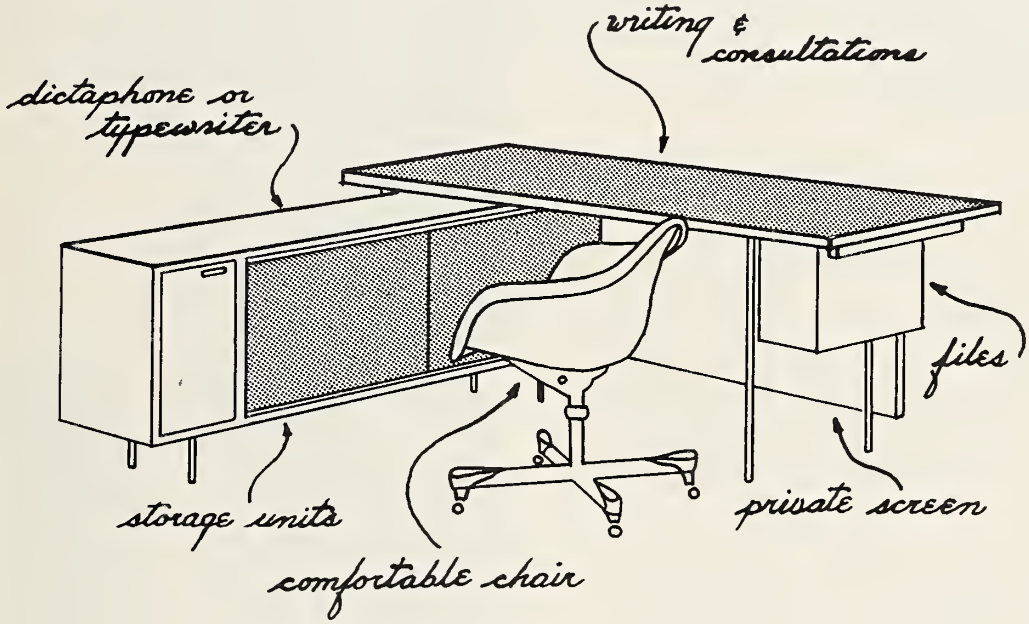

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Announcements

Marion F. Baxter, M.D., announces the opening of an office for the practice of internal medicine and hematology at 1007 Farmington Avenue, West Hartford.

Barbara Christine, M.D., announces the opening of her office for the practice of general medicine at 253 Main Street, Torrington.

Edward J. Day, M.D., announces the opening of his office for the practice of obstetrics and gynecology at 609 Savin Avenue, West Haven.

Edward Gerber, Jr., M.D., announces the opening of an office for the practice of surgery at 73 Meadow Street, Naugatuck.

Lenore Luttinger, M.D., announces the opening of her office for the general practice of medicine at 1239 High Ridge Road, Stamford.

Mahmood Mirkhani, M.D., announces the opening of an office for the practice of pediatrics at 301 Maple Avenue, Cheshire.

Arthur O. Phinney, Jr., M.D., announces the opening of his office for the practice of general medicine and cardiology at 1 Mill Lane, Farmington.

William M. Sullivan, M.D., announces the opening of his office for the practice of internal medicine at 386 West Avenue, Norwalk.

Norman Weinstein, M.D., announces his association with Dr. Aaron Eimas for the practice of pediatrics in the Professional building, 881 Lafayette Street, Bridgeport.

John M. Bellis, Jr., announces the opening of an additional office for the practice of psychiatry at 117 Glen Parkway, Hamden.

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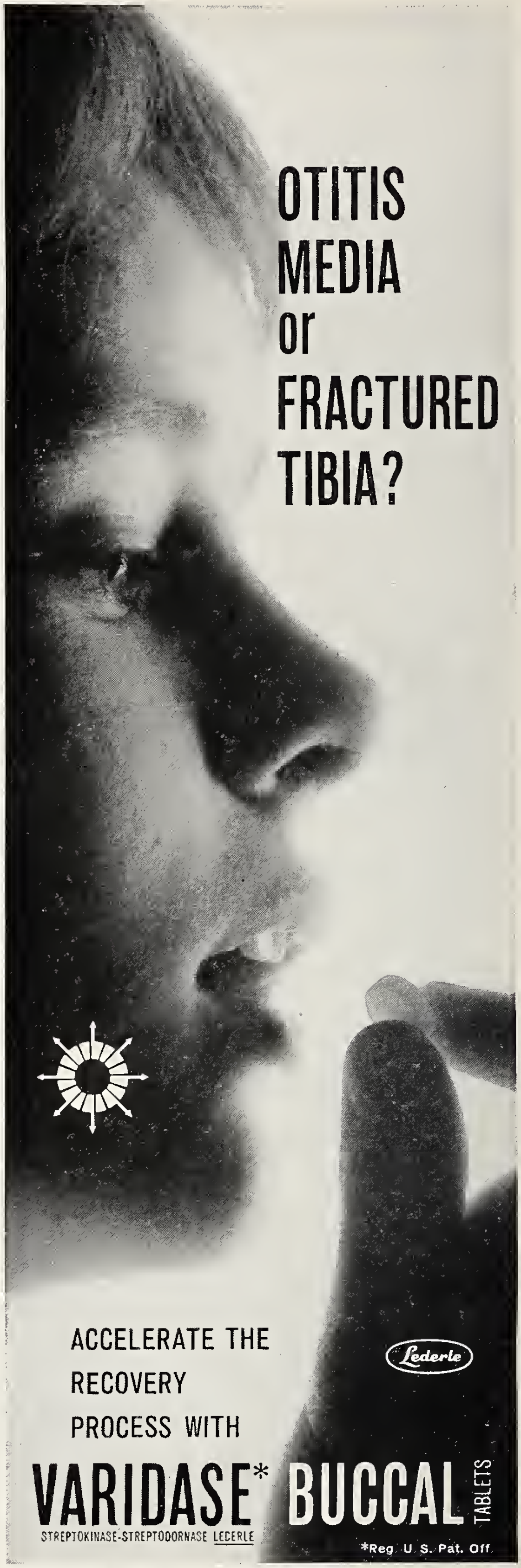

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BOOK REVIEW

DRUGS OF CHOICE 1958-1959. Walter Modell, Editor. St. Louis: C. V. Mosby Co. 1958. 931 pages $12.50.

Reviewed by Louis H. Nahum

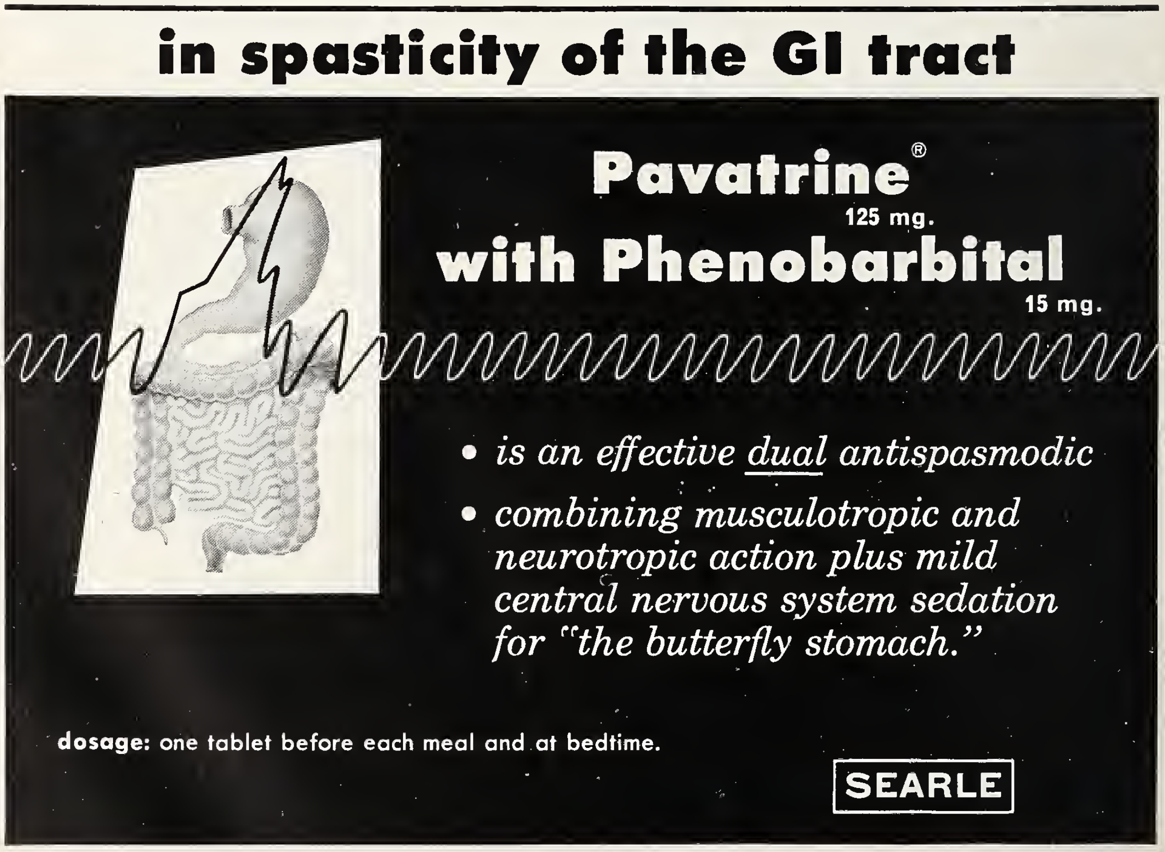
This excellent and unusual book consists of 35 Chapters written by 38 eminent authorities among whom are such names as Barach, Barr, Bean, McKeen, Cattell, Damashek, Karnofaky, Keefer, Tracy Putnam, Sulzberger and others.

Modern chemistry and technology have made available countless agents of proved or potential therapeutic usefulness. Many are also not without their dangers. The availability of these medicaments imposes increased responsibility on the physician who must provide his patient with every possible relief from suffering and disease and at the same time must administer nothing deletious or destructive. This is a difficult situation because potentialities for evil reside even in the most benign drug. So many drugs appear on the market masked by a different proprietary name, that it is almost an insuperable job for any physician to learn enough about them to evaluate their relative therapeutic merits. The physician is at present subjected to a barrage of attractive though far from disinterested literature through the mails which is regularly followed up by a direct attack from a detail man. The doctor is therefore in danger of falling victim to such biased influences, unless he has at his disposal a guide from which he can determine the drug of choice so that his patient will receive the most judicious therapy.

Modell has succeeded in this volume to bring together experts that present for the physician a comprehensive source of clear, concise, authoritative and eminently practical answers as to the best drug in any actual therapeutic problem not in one but in every branch of medicine, surgery and their sub-specialties. Each chapter is written by an expert and presents the opinion of the expert on the drugs in current use in his own field. Avoiding controversy the authors present a clear and definitive answer to the use of each drug and the reader is led to rest on the authority of specialized knowledge and experience—a very comforting if not altogether rational approach.

Most chapters are divided into several major sections each containing a concise discussion of clinical conditions in which the drugs under consideration are used. This is followed by a discussion of the nature of the available data which make one or another of the drugs the more desirable. At the end of each chapter one finds a most unusual and illuminating consideration of what the future holds and what is lacking in drug therapy at the present time in the particular area. Each chapter also is followed by a list of selected references which provided the data on which the opinions expressed are based. A most satisfying termination of each chapter is an extensive alphabetically arranged drug index of the drugs commonly used for the disturbances under consideration, including a capsule account of the drug, the dosage form in which it is available, their proprietary names and manufacturers as far as is practicable.

It is comforting that drug mixtures are rarely considered.



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In the first place their number is legion. Their unique virtues are not impressive nor easily evaluated. In fact there are few mixtures whose effects cannot be duplicated by the separate use of the constituents. Furthermore adjustment of dosage is impossible. Among all the excellences of this book, this one, the discouragement of the use of mixtures, implicit in the way the drugs are evaluated can be considered a real step in securing a rational approach to therapy on the part of the practicing physician.

Many drugs are listed in the drug index which are not mentioned in the text. This means, according to the Editor, that such drugs are not recommended either because of insufficient merit to warrant space and effort required for a statement or as in the case of new and as yet untried drugs which at the time of the writing were not as yet supported by experimental or clinical data for a definite opinion on their utility.

The first chapter on the principles of the choice of drugs is in the best tradition of a text book of pharmacology and sets the stage for the way in which the different authors will carry out their respective tasks. Except for a few old drugs like digitalis which came into medicine by way of an accident or a herb doctor, most of the important drugs in modern use have come by way of the laboratory like penicillin for example. It is therefore through laboratory investigation that information about the action of a drug, its potency and its toxic effects, that we obtain the initial clues to its therapeutic potential and its safe use. After data is obtained through studies in the laboratory comes data developed through studies in man. Thus has therapeutics become an outgrowth of pharmacology.

Subsequent chapters on drugs for children, agents to maintain internal homeostasis, the choice of a diuretic, drugs for nutritional disorders follow. Anti-infective agents are thoroughly covered including all the newer antibiotics and their indications. The sulphonamides, tuberculostatic agents together with a consideration of the side reactions conclude this chapter.

Chapters follow on drugs to stimulate mental and physical activity; anesthetic drugs for the relief of pain; sedatives and tranquilizers; the choice of a hypnotic; the choice of an anticonvulsant; agents for disturbance in equilibrium; anti-emetic agents; skeletal muscle relaxants; drugs for gastro-intestinal disturbances; for intestinal parasitism; for heart disease; for hypertension. There follow chapters on vaso-constrictor drugs for hypotension and shock; vasodilator drugs for the treatment of peripheral vascular disturbances; anti-tussive agents; anti-allergic agents; drugs in gout and diabetes; drugs for hormonal disturbances; anti-arthritic agents; drugs for cancer and allied diseases like leukemia, acute and chronic, and Hodgkins. The chapter on drugs in hematologic disorders by McFarland and Damashek is especially excellent.

The choice of drugs affecting the coagulation of the blood by Loomis is followed by a chapter on drugs in obstetrics and gynecology, then on drugs for urologic disorders; dermatologic drugs and drugs for the treatment of poisoning. The final chapter on the choice of a diagnostic agent completes the book. In it is an introduction by Dr. Barr. Diagnostic tests in heart disease, distinction between pheochromocytoma and hypertension; agents for gastro-intestinal diagnoses; diagnostic drugs in gynecology; in urologic disorders, etc.

The book ends with an index of 44 pages in which any drug can be quickly found in any chapter.

From what has been said above, it becomes clear that this is a monumental book with important information on therapeutic drugs in every branch of medicine. Because of its pharmacologic orientation and authoritative treatment of the choice of drugs it is recommended for every physician be he general practitioner or specialist.

167th Annual Meeting

CONNECTICUT STATE MEDICAL SOCIETY

April 28, 29, 30, 1959

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Special Notices

DIABETES WEEK

November 16-22, 1958

Sponsored annually by the Connecticut Diabetes Association in cooperation with the State Medical Society, Diabetes Week will be highlighted by a diabetes screening campaign directly conducted by Physicians—exclusively working through city, county and state medical societies.

The campaign has these aims:

1. To screen as many persons as possible in the community for diabetes and send those whose tests are positive to their physicians.
2. To make sure that all physicians receiving positive reports follow them up with blood sugar determinations and other necessary tests to establish whether or not diabetes is present.
3. To make the community "diabetes conscious" aware of the need for both detection and control.

Diabetes presents a double problem: first, control of the condition and its complications in our known diabetics; second, detection in the vast number of people whose diabetes has not yet been discovered.

More than two million Americans are diabetic, but pilot studies indicate that almost half of these are "unknown" that is, their diabetes remains undiagnosed, and therefore uncontrolled. Perhaps as many as 4,750,000 more are potential diabetics.

Discovery of the hidden diabetic is as much the function and duty of the physician as is treatment of the patient whose ailment has been diagnosed.

TRAINING PROGRAM FOR GENERAL PRACTITIONERS

The National Institute of Mental Health is offering grant support for a training program for general practitioners and other physicians engaged in the practice of medicine other than psychiatry. Funds are available during the current year (fiscal year 1959) for these grants and training institutions may submit applications at any time.

The program has two purposes:

I. To foster the development of postgraduate training in psychiatry for the practitioners who wish to increase their psychiatric knowledge and skills in order to be able to deal more effectively with the emotional aspects of illness generally and in order to play a more effective role in the treatment and prevention of mental illness. These courses will be designed for the physician who plans to continue practicing in his own field.

Grant support is being offered to medical schools, hospitals, clinics, and medical and psychiatric societies for the development and expansion of such postgraduate training in the form of courses, institutes, and seminars. This support does not include fees, subsistence, or travel for the physicians who attend.

Support of this type of training may be for a particular professional group over a given period, or for training offered regularly as part of the postgraduate curriculum of a medical school, hospital, or clinic, or as part of the educational program of a medical or psychiartic society.

Physicians interested in obtaining this type of training should apply to medical schools, hospitals, clinics, and medical or psychiatric societies which have, or are developing, such training opportunities.

II. To provide support at an adequate level for psychiatric residency training for physicians in practice who wish to become psychiatrists. Training stipends up to a maximum of $12,000 a year are available. The level of payment will be determined by the training institutions who will also make the award to the individual physicians. The National Institute of Mental Health will make awards of grants for this purpose to training institutions and not to individuals.

Physicians interested in support for this type of training should apply to traniing institutions which are approved foı psychiatric residency training.

Inquiries about the program should be sent to Dr. Seymour D. Vestermark, Chief, Training Branch, National Institute of Mental Health, National Institutes of Health, Bethesda 14, Maryland.

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PHYSICIANS Office for rent at 275 North Main Street, Waterbury. Centrally located, it has been physicians office for forty years. Well furnished and in very good condition. Spacious waiting room, consultation room with desk, cabinets, examining table, scale, typewriter table, etc. Also small dressing room with treatment table, and small lab room. Sundry items and instruments. Parking room. PLaza 3-0881.

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CONNECTICUT MEDICINE

VOLUME 22 DECEMBER, 1958 NUMBER 12

Strategic Planning for Mental Health

GEORGE S. STEVENSON, M.D.
New York, N. Y.

INTRODUCTION

There is hardly any one who can appreciate more than I can how much of an honor it is to give the first Clifford W. Beers Lecture, and I know how proud he would be to have this lectureship given in a hall of his beloved Yale.

Beers and I worked side by side for thirteen years. I have worked since then with many former psychiatric patients, families of such patients and men who, like Beers, were business men. Most of the business men, insofar as they were patients, differed from Beers in that their mental illnesses appeared so often as ulcers of their gastric or duodenal mucous membrane. Beers was able to act out his emotions and thereby protected his soma from his psyche.

Beers' interest was in getting society to do better by mental health. Such efforts of citizens organized for mental health are classifiable as social action. I should like, therefore, to inspect with you this business of social action, taking Beers and his times as something of a springboard.

LAYMAN—CITIZEN—PROFESSIONAL

Among all of these people who are interested in mental health, Beers was most conspicuously aware of his place in the scheme of things, his talents and his role in relation to the professions. From the very beginning of planning for organized mental health he busied himself with matters of finance and organization and left to those who were more competent in other ways decisions requiring scientific and professional competence.

Beers was a layman. But being a layman offered him no guide to action for there are no specific functions identified as those of a layman. But Beers was also a citizen and he got his pattern for action from being a citizen concerned with adequate service to the mentally ill. There are functions that go along with citizenship which can be defined, and especially in a field like mental health which is so dependent upon government for its operation. The citizen in fact is the unit of government and whatever government does is his responsibility, a responsibility which he cannot relinquish. It is not too widely appreciated how extensively other countries, even though democracies, do not subscribe in practice to the concept that the citizen is sovereign, and I have not infrequently found that it is considered presumptuous for a citizen to advise or recommend action to public officials, no matter how respectfully. This is an undeveloped or immature citizenship. It is because we still in the United States have so much of this immaturity that a citizens movement like that of mental health is needed. But it is also because we have matured somewhat that we can have such a movement.

First Clifford W. Beers Lecture, Yale University, delivered October 14, 1957 under the sponsorship of the Departments of Public Health and Psychiatry, Yale University, and the Connecticut Association for Mental Health.

Recognizing his role as a citizen, Beers established the pattern for good collaborative relations between the citizens organization such as the National Association for Mental Health, and the professional society, for example, the American Psychiatric Association, that still hold. To the latter he left decisions with respect to mental illness that call for a professional and scientific consensus, while the citizen's organization speaks within the limits that are appropriate for the average citizen, who is nonprofessional. At the same time it is within the discretion of the citizen to say authoritatively what problems he wants dealt with. He leaves it to the profession to design the technique. The citizen is, however, fully within his competence when he says that pathfinding, study, experimentation and research are needed. The solutions to problems have to be promoted to be accepted and other organizations need to be helped to participate in solutions.

For example, for a number of years the National Association for Mental Health offered fellowships for psychiatrists to train in child psychiatry. It did not require professional competence to make the decision to do this. But this program necessitated the spelling out and evaluating of qualifications for trainees, deciding on the content of training and the qualifications for a good training center. These are decisions that should appropriately be made by a professional rather than a citizen's organization, but the National Association for Mental Health was unable to get any of the existing professional organizations to take over this responsibility. It was, therefore, forced to do these things. However, after a while it advised some six or eight outstanding child guidance clinics to form a professional association of their own. This they did and since that time the American Association of Psychiatric Clinics for Children has carried the professional responsibility.

THE TIMES AND FINANCING

Beers is sometimes criticized for personally going begging for mental health rather than organizing a big campaign to raise money for this field. But let us remember that his day was not the day of big campaigns such as heart, cancer and polio later developed. Tuberculosis Christmas seals and Red Cross campaigns were the giants of those days. Beers did not go begging with hat in hand, that is, obsequiously. He considered his cause a great cause and that it was a great honor for others to help support it. Still I have never seen any one else who could so blatantly seek and accept what seemed to be praise and glory, and yet do so in humility. To strangers this looked for all the world like ego inflation, but his ego was inseparable from the identity of the mental health movement. His justification for courting praise and glory, it was not inflation, was to be found in that movement rather than in himself personally. He benefited very little monetarily or otherwise from his association with the mental health movement and he never competed with his brain child for attention as many parents do with their own children.

The mental health movement of Beers belonged to the first half of the twentieth century. As we now move on with the century in the development of more adequate and diverse underpinnings for mental health and its movement, we look toward nation-wide support by smaller contributors.

PROGRAMMING—OPPORTUNISTIC OR STRATEGIC

In the same way organized mental health is progressing in its programming. Let us say that in the first half of the twentieth century programming was more opportunistic. Social advances came about as a reaction to problems that imposed themselves on us rather than from an inspection of the total need and the selection of objectives of higher priority. The imposing need is not always the most important need. Before us now lies an opportunity for strategic rather than opportunistic programming. An example from the problem of stigma will clarify the distinction. The opportunistic approach identifies stigma as a burden on the recovery of a mentally ill person, but it does not then try to place stigma in its proper priority in relation to other problems or even analyze causes of stigma. Stigma is an attitude of the public, so a short-sighted approach tries to eliminate the stigma by talking the public out of it on the assumption that this is simply a heritage of the past to be neutralized, for example, by logic. But cases of stigma can be studied to determine what they are composed of and what keeps stigma alive. The study would also need to find out why past efforts to eradicate stigma have failed. The findings of such a study should determine our action if the approach is one of strategy. We would find in fact that stigma is not simply a heritage, but as well a creation of the present official way of handling the mentally ill.

Stigma reflects social failure and the study of failure is a general approach to the solution of any problem. It is an effective step in planning strategically instead of opportunistically. In pursuing this line we have much to learn from industry. A business would not survive long if it did not subject both its production and distribution failure to frank analysis. In the human fields we are apt to be more sensitive about our failure, so much so in fact that we too often hide them and hide from them instead of studying them and learning from them. They are the key to progress. Our strategy must be based not only on the causes of failure, but also on forces that make people put such a high value on perfection.

If we study the failure of the public to give up stigma, we discover why we tell the public that they are dangerous and incompetent. We begin to realize that by locking the mentally ill up needlessly. Also by denying motor vehicle permits, by abrogation of civil rights, such as making wills, transferring property and voting. These things impress the public and neutralize our protests. These rights are properly restricted in some cases by the due process of legal adjudication of incompetence, but many states tie together incompetence and commitment as a single process. Even the commitment, i.e., the removal of the freedom of the patient to live where he pleases and choose his medical care is overdone. The relation of stigma to enforced hospitalization is shown in England where the unlocking of hospitals has resulted in the acceptance of the mental hospital voluntarily by 95 per cent of its patients. This same unlocking means that the staff of the hospital also escape into the community, provide it with psychiatric services, break down the isolation and mystery of the hospital and reduce stigma.

The battle against stigma also becomes an internal battle with the fears of psychiatrists that patients will embarrass them by running away, having automobile accidents, etc. Could this fear of running away be a reflection of the belief that patients should be expected to run away, that we, too, would run away from the inadequate service now being offered? Isn't it understandable that when one does things against a patient in order to ease administration, the patient should use his only defense of running away, assault or even suicide. So many things done in hospitals are done for administrative ease rather than for patients, such as set rules about visiting, no visits the first month, good for some possibly, bad for many beyond question. The theory behind the unlocked hospital is that the misbehavior of patients is often due to the way they are treated rather than their disease.

The battle against stigma becomes, therefore, a research battle. Are the mentally ill as a group more dangerous drivers of cars than the average or than some other identifiable groups? The answer to this question is not beyond the reach of research, but the research has not been done.

The battle against stigma becomes a legislative battle to revise laws, to separate determinations of competence and enforced hospitalization and to make local provision for service. From the early days mental health associations have concerned themselves with legislation. In the teens of this century there was special concern about mental health problems at Ellis Island. That resulted in Federal action. More recently the Federal Mental Health Act was in focus. Most effort has, however, been placed on state legislation. This is understandable since the traditional services are under state auspices. Too often, however, local legislation seems to have been entirely overlooked. The developmnt of state-local participation in community health programs calls now for more attention to local legislation. School boards are almost always concerned with decisions that affect the mental health of pupils, and county and city authorities are repeatedly legislating with respect to police, welfare, correction, courts, recreation, libraries, etc., all of which influence the community's mental health and ways of dealing with mental illness. Local legislation is especially important for dealing with stigma and it may enable the community to deal in normal terms with the mentally ill or formerly ill and demonstrate his recovery to the average citizen.

See how complicated the matter of stigma becomes when one analyses it and how futile it is simply to harangue against stigma without any strategic plan. Beers knew that stigma was deeper than tradition and he did not encourage other former patients to expose themselves as he had done. Some said that he was removing competition, but there was more sincerity to it than that.

The distinction between the opportunistic and strategic approach is the same as the distinction between symptomatic and comprehensive medicine—the former attacking the symptom with very limited knowledge of the factors which brought about the symptom. It tends to focus on the relief of the symptom, whereas comprehensive medicine focuses on the conspiracy of factors that result in the symptom, and so when these factors are attacked it affects a more enduring and very important advance.

PERSONNEL AND STRATEGY

The lack of strategic programming is especially evident in dealing with the shortage of personnel. The beginning and end is often to conclude that recruits for the professions in short supply must be bought. Pay medical students to move into psychiatry. Pay girls to come into nursing, social work, teaching, etc. Each group offers scholarships for trainees. There is failure to assess the total pool from which these drafts must be made. As a result the inducements become competitive, i.e., they in effect say come into social work instead of nursing, or vice versa. There is less inclination to inspect the use of our present supply to see if it is economically employed. At one hospital recently this was done with the result that supervising nurses were found to spend approximately 50 per cent of their time on clerical work—checking employees on and off duty, telephone messages, making out time slips, checking absenteeism, vacation requests, reporting maintenance and repairs needed, checking packages and clothing, recording changes in patient population in census books, noting transfers of ward cases, writing requisitions for supplies—household, stationery and clothing, and consolidating ward shift reports. These functions do not involve contact with patients. As a result 10 of the 46 unfilled nursing positions were abolished and replaced by 15 clerical positions at the same cost and with good prospect of being filled. Analysis of the reasons for loss of personnel lead to much broader solutions than buying the way through a shortage, and a study of what happens to personnel who are bought into the field shows how small a portion of them are enduring staff members.

BROADER VALUES OF STRATEGY

Strategic social action leads directly into preventive effort and so has an impact beyond the scope of the original symptom. The forces that bring about human misery shown by mental ill-health bring about many other human miseries that are modified, reduced or eliminated in the course of a radical attack on mental ill-health.

Buell and his coworkers have made community studies which show how consistently different symptoms or expressions of human disfunction appear as companions in what he calls the multiproblem families. These are families that are burdened with behavior disorders, physical ill-health and economic poverty. He has shown that multiproblem families make up about six per cent of all the families that use our community resources for these three types of problems. But the six per cent of multiproblem families use over half of the resources. These concurrent problems are more than companions, they are siblings, born of the same causes, largely mental.

At this point it would seem appropriate to suggest that if social problems cannot be isolated and are so companionable and mutually contributing it might be good strategy for the agencies that are set up to deal with them to be equally companionable, to consort with each other, and to recognize that the quality of the work of each is influenced by the work of the others. Such collaboration among governmental agencies would seem from its absence to be political heresy, for the rule is that each look out for himself and the devil take the hindmost. Look how long it has taken for vocational rehabilitation to step over our state departmental lines to grasp the hand of the mentally ill; or to put it another way, how long it has taken our mental hospital authorities to guide the patient across the line to get the benefits of vocational rehabilitation. It would seem to be a governor's task to make his executive departments work together effectively, but most governors are overloaded with other tasks, just as our hospital nurses are, and have not been given the assistant governor to delegate this task to. Maybe they haven't asked for such assistance, nor tried to develop an interdepartmental council to do the job.

A good example of the collaborative strategic versus opportunistic action is found in the anti-isolationist, collaborative development that is taking place in organized labor. In the past an opportunistic direct and simple idea for unions was to set up health and welfare services for their members and perhaps members' families. But now a more penetrating view and program sees the importance of the union member as a leaven in the development of services within his community for everybody. It sees also the need to train and strengthen union members to give statesmanlike leadership, including informed membership on boards. It establishes the union as a part of the community rather than being merely in the community.

Training members for community statesmanship is rare in other organizations.

Most voluntary agencies are also afflicted with isolationism. They, too, are competing for money. They, too, are empire building and anyway they are made up of human beings with their fears and frailties just as the governmental agencies are. Team work among the professions, even within the staff members of a single agency, is still to be achieved.

We who are in the search for mental health can think of courts, schools, social agencies, health and recreational agencies, churches, medical services and many others as our allies. If one studies the collaborative relations of early child guidance clinics it will be seen that these alliances were established early in the mental health field. In fact I am afraid that we may have regressed somewhat in this regard.

Team work across the board leads to another kind of team work up and down the line. Without crossing departmental lines to work with our allies we find indispensible partners working right within our own field. The partnership of world, national state and local agencies. This partnership is better developed today than ever before through a formal network of affiliated mental health associations receiving field aid from a national office.

It can be appreciated, then, that while strategic programming has the potential for broader value these values are not realized unless allies and partners are brought into combined action with combined strength and joint timing of effort.

PUBLIC AND VOLUNTARY

One of the elements of designing strategy is to measure our resources to see how they can best be used. This calls for a clear concept of what a voluntary citizen group can do most effectively and what government—our ally—can do. The things that government does are theoretically the sanction of the majority of our citizens. Our state hospitals are an example. The individual citizen, the smallest minority, however, is free to voice new ideas and provide new services at will, provided he doesn't hurt anybody in doing so. But this freedom is rather empty in effect if he goes it alone because he lacks force. So he tries to gather together a larger minority to define needs that have escaped definition before, to experiment with ways of meeting these needs and to demonstrate his successful experiments and interpret them to the public majority and to other fields. His hope is that his ideas will acquire majority and perhaps governmental support. If this happens he is then freed to take on new problems, and needs, and pursue the same course with them. I realize that this is an over-simplification, but it sets forth a difference. Many volunteer activities, e.g., Red Cross, colleges, etc., have majority sanction but in part remain voluntary for good reasons. But in general this revealing of needs, experimentation and demonstration are the functions of the citizen intent on progress and of a mental health organization. The gathering of national statistics, conduct of research, training of personnel, inspection of mental hospitals and development of clinics are all former functions of mental health associations that have been demonstrated to the satisfaction of the majority and adopted by government which is able to do them better. Most of the functions of the National Institute of Mental Health itself are a continuation of earlier private activities and the outgrowth of voluntary interpretations to Congress. The Institute's thirty-five million dollar budget shows how the majority can outdo the minority even while the minority is moving ahead and is outdoing its own past.

STRATEGY AND PRIORITIES

I have suggested that a basic step in citizen action is the measuring of resources and the revealing of needs. There seems, however, to be no end to the needs that we can uncover. The trick is to reconcile our efforts to meet needs with our resources. We have not at any one time the resources to experiment, discover answers and demonstrate these answers for all needs. We must choose those that are most pressing. How shall we choose? What shall be our yardstick for measuring their importance? I have a yardstick to suggest. But I think the important thing is to recognize that a yardstick is better than a prejudiced or off-the-cuff decision. The experienced and intelligent person can design his own measure. My yardstick is embodied in five questions that I apply to any need or problem, or proposed solution to a problem.

1. Does it affect a great or small number of people?
2. Does it affect them deeply, painfully, seriously, perhaps mortally, or is it simply in the category of discomfort?
3. Does it affect society deeply or painfully, e.g., does it seriously disrupt families or increase taxes?
4. Has science progressed far enough to give us confidence that we see the need clearly or have more than a guesswork basis for experimentation?
5. Is society inclined to back us to the point of a solution? Does it yet see this as a problem?

PUBLIC RELATIONS AS A CRITERION

In the choosing of goals and programs I find again and again that the determining force for any specific project is its public relations value. Will it make the public like us? This is not necessarily reprehensible. But if the project selected displaces one of greater importance simply because it has publicity value, it is deplorable. If the activity selected stands in high priority, but is planned and executed chiefly in terms of public relations it may be that that is the necessary first step, especially where the application of the fifth criterion listed above shows that the way is clear to progress except for public readiness. Also if a certain amount is to be spent on public relations, there is no reason why popular projects of any priority—research, professional education or even the gift of a television set to a hospital ward—should not be adopted for its public relations value instead of something which has no enduring worth.

THE PSEUDOSANE

Former patients following the lead of Beers have often been the promoters of and supplied the backbone for action in behalf of mental health, but many who are still mentally ill see us in a different light—as a threat. This is a calculated burden we take on when we busy ourselves in this field. If there were not such as these our task would be finished.

The paranoid schizophrenic searches for an outside intruding power as an explanation for his unrational thoughts which he feels have been imposed on him. He believes his thoughts are being controlled, and so they are but by his own unconscious life. He seeks to identify this outside force and implicates many intangibles—electricity, hypnotism, atomic energy, it, they, the enemy. These are all fingered by him as the culprit. These obviously mentally ill persons are no great obstruction to our strategy, but the less evident mentally ill person is a constant concern. In 1956 the combined efforts of persons with an obscure mental disorder forced Congress to alter the Alaska Mental Health Act which they interpreted as a scheme to set up a concentration camp in Alaska for the whole country. It is interesting that some persons whom we often call reactionaries are prone to attack psychiatry and organized mental health as "mind controllers" and "planners", with the same disregard of fact and logic as the paranoid schizophrenic. Two recent articles in the American Mercury show this vividly. These people protect themselves by shunning fact and by interpreting fact in line with their strange twists. It is so difficult to get them to inspect fact that one is justified in considering these people more than merely misled. They are essentially mentally ill, but wearing a mask of sanity. Looked at in this light it is understandable why they are afraid of any relaxation of commitment laws, why they pay so much attention to a few cases of supposed abusive commitment, and no attention to the great benefits of liberalized commitment.

Since writing the above one of these pseudosane has circulated an article which illustrates perfectly and uses one of the common terms applied to the hidden enemy—"they". In the August, 1957 issue of the "National Republic"* a periodical devoted to "Fundamental Americanism" appears an article entitled the "Mental Health Racket". I quote:

> "The gentler techniques of brain-washing already are appearing in the swiftly moving science of mental health. An unknown and mysterious *They* are making plans for *You*. You are going to have your brain "washed" so you can become a well regulated little citizen of the world. Who are *They?* What are *They* planning?
>
> "These are questions which have frustrated thinking Americans for many years. Is there really a group of shadowy figures lurking behind the scenes trying to direct world affairs? Do *They* have plans to make *You* a citizen in a socialistic America subjugated to a world authority?
>
> "The existence of *They* most Americans scarcely doubt. The questions unanswered in the American mind remain: Who are *They?* Where are *They?* How much influence on the economy and politics of the United States do *They* exert. How much influence in our individual lives do *They* have?
>
> "There is a movement which in recent years has attempted to alter the thinking patterns of Americans. By the psychiatric techniques of group dynamics and conditioned reflex therapy, this *They,* to a great extent, have cast a net over the Western mind. Exactly how much influence *They* wield over politics and economics is a moot question.
>
> "This mysterious *They* was the subject of Dr. Alan Gregg of the Rockefeller Foundation in November, 1947, at the 38th annual meeting of the National Committee for Mental Hygiene (now National Association for Mental Health). Dr. Gregg suggested that the NCMH depose and supplant *They* and that 'from now on we call the N.C.M.H. 'W.E.' or perhaps 'WE,' in generous acknowledgment of one another's enthusiasm and abilities. . . 'WE,' together can do the work and take the responsibility. Not we alone—but *we,* gathering strength from all who will join us in a great conviction—but always WE.'
>
> "Thus in Dr. Gregg's mind, the collective third person *They* was discarded in favor of the collective first person *We*. Those who use this *We* include a certain segment of psychiatry and other so-called social scientists, interested in modifying human nature to bring about a new world order."

These folks do not have to work hard to sell a bill of their goods to others similarly afflicted and together they even succeed in entangling normal persons in their systematized delusions. The difference between them and their normal collaborators is that the latter will be found to be open and amenable to facts and reasonable even if not perfect in their perspicacity and logic. But too often we have failed to provide this normal group with the factual grist for their reason to leaven. When one finds antimental health, antifluoridation, anti-this and anti-that or even pro this or that which excludes a place for the study of fact, one should study their adherents for earmarks of unreason. When one finds these antis embracing several of these causes the odds are strong that the pseudo sanity hides a potential beneficiary of our efforts to do better by the mentally ill.

In conclusion let me repeat how moved I am to be able to speak under the egis of Clifford Beers and Yale, and to thank you who have been so patient in listening.

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* National Republic, A Magazine of Fundamental Americanism. Vol. XLV—No. 4, August 1957.

The Private Physician and The Public Schools

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PRIVATE physicians in Connecticut have played a prominent and sustained role in school health programs. Many have served for long periods as part time school examiners, as team physicians during football seasons, as emergency school doctors. The private physician may be called to see one of his regular patients at school, just as at home or in his office. At all times these calls have been answered.

The Connecticut State Medical Society has acted, in a guiding role, in cooperative sponsorship of the Conferences on Physicians in Schools held in recent years in this state. Some physicians have attended such conferences at the National level.

In addition, the Connecticut State Medical Society has been prominently identified, along with other agencies, in the Connecticut Advisory School Health Council. This group, under the dual guidance of the Connecticut State Department of Education and the Connecticut State Department of Health has been responsible for raising the level of school health services in the past few years. Through such publications as the "Self Study Guide for School Health Policies" and "Functions and Qualifications of School Physicians," standards have been set and goals have been raised. It has been rewarding to observe busy practitioners in free give and take conferences with educators, voluntary health agency personnel, and members of the public health organizations. Participation of the state society members has been sincere and thoughtful. The final published results of this council bear witness to sound medical thinking.

Concerning the required triennial physical examinations of school children, the recommendation of school health people has been that these are most satisfactorily performed by the family's private doctor. Many are so performed, and adequately reported to the schools. Often, however, the report to the school is so superficial as to suggest lack of interest. Such reports are responsible for much of the disagreement that still remains on private doctor examinations versus examinations performed in school. If the quality of the reports of these health inventories done in the practitioner's office can be improved, this area of disagreement will disappear.

As school medical services have improved in Connecticut, so have a group of ancillary school health activities. Many school systems now employ one or more persons trained in improving speech and hearing defects thru special education. These specialists seek and require the private doctor's understanding and cooperation. These services are not readily purchaseable outside the school setting, and have aided immeasurably in improving the emotional health and school adjustment of the pupils successfully treated.

Another, possibly less familiar specialist being found more frequently in enlightened school systems is the educational psychologist. In the smaller schools psychological services may be purchased on a part-time basis, largely limited to the areas of intelligence and achievement testing. The administration of these and more subtle individual tests of emotionality or vocational aptitude make up a large portion of the educational psychologist's armamentarium. A fairly recent synopsis of the functions and training of school psychologists may be found in the small volume summarizing the Thayer Conference called "School Psychologists at Mid Century," edited by Norma E. Cutts and published in 1955 by the American Psychological Association, Inc.

It will be noted in this and other published reports[1] on school psychological services, that emphasis is being shifted from testing services to more active interest in identifying and working with emotionally disturbed children. As juvenile delinquency becomes more overt, the pressure for such activities in the schools increases.

As with the other paramedical school personnel, close cooperative arrangements between school psychologists and community mental health resources is mandatory. The school psychologist is always eager to obtain expert medical opinion concerning his charges. His attempt is mainly to reintegrate the disturbed child into the school setting. He is always delighted to obtain aid in solving the child's adjustment problems outside of school.

School psychological workers tend to use community resources such as child guidance clinics and family service societies as referal agencies for the more disturbed pupils. Often such referral suggestion is channeled thru the family doctor. Ideally, such referrals are not made until agreement with the family physician is reached.

It is well worth the private physician's time to consider the results of school testing and evaluation procedures. A child seen infrequently for organic illness may be understood in a quite different light when such results, arrived at by people seeing the child daily over a period of years, are given due weight. It is a most disturbing occurrence, to the school administration, the family, and the pupil, to find that there is major disagreement between the family physician's advice and that of the school. Occasionally, and usually without due consideration, a physician will suggest to the family a particular grade or school placement for the disturbed child. For educational-psychological reasons such arrangements may be impossible for the school to comply with in good conscience. In all such cases, a prior review with school authorities will usually reveal a sound plan, based on observation and test results of principals, teachers, and guidance or psychological personnel. Can the medical practitioner offer really sound advice in this strictly educational area? Should his function not be rather to work closely with school personnel, offering his invaluable recommendations and treatment in the area of the child's medical and family background, in such a way that school personnel may integrate these into the educational plan?

Most children in Connecticut spend twelve years in public schools. More each year, the school adjustment or lack of adjustment will affect their future as adults. Technological, scientific and general educational progress makes increasing demands. As physicians, we need to be aware of the health and paramedical programs designed to improve the scholar's total school and community adjustment. If services are lacking, if particular school systems are failing to offer speech and hearing training and sound psychological and guidance services, physicians should take an active part in furthering the development of these areas in their respective communities. Active participation on school health councils, or in P.T.A. or other activities by private doctors can aid immeasurably in securing needed special services.

Physicians need fear no competition from such school centered health personnel. Quite the contrary, sound relationships between such personnel and private medical practitioners can make for mutual satisfaction for both and improved mental health in our schools and our communities.

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167th ANNUAL MEETING

CONNECTICUT STATE MEDICAL SOCIETY

APRIL 28, 29, 30, 1959

HAMDEN HIGH SCHOOL, HAMDEN

Correction of Congenital Aganglionic Megacolon in An Adult

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Congenital aganglionic megacolon has been recognized since Hirschsprung described it in 1888.[5] His description contained the salient points, of diagnosis, emphasizing as he did the beginning of the disease at birth, its chronicity, and the finding of the dilated sigmoid colon with normal appearing rectosigmoid and rectum. Advances in discovery of etiology were recorded by Dalla Valle in 1920 when he showed that ganglion cells were absent in the sigmoid and rectal areas.[3] Cameron in 1928,[1] and Robertson and Kernohan in 1938[6] confirmed these findings. It remained for Swenson in 1948[7,8] to show that resection of the aganglionic segment of sigmoid and rectum with re-establishment of continuity by anastomosis in the anal area would relieve the disease process. Many reports since then have confirmed this surgical approach.[4,10]

This presentation concerns the congenital type of disease seen in an adult.

A thirty-three year old housewife, mother of two children, was first seen in June of 1956. She gave a classical history of obstipation beginning at birth with many bouts of intestinal obstruction in childhood, several nearly fatal. Diagnosis of aganglionic megacolon had been made by x-ray in 1946 and she had again been studied in 1954 but surgery had never been suggested. She had never experienced a spontaneous bowel movement without enemas and required several hours daily for colonic irrigations, at times amounting to thirty quarts of fluid. Her physical examination confirmed the presence of large fecal masses rising above the umbilicus. (Fig. 1 and 2). The rectum was normal. Repeat barium

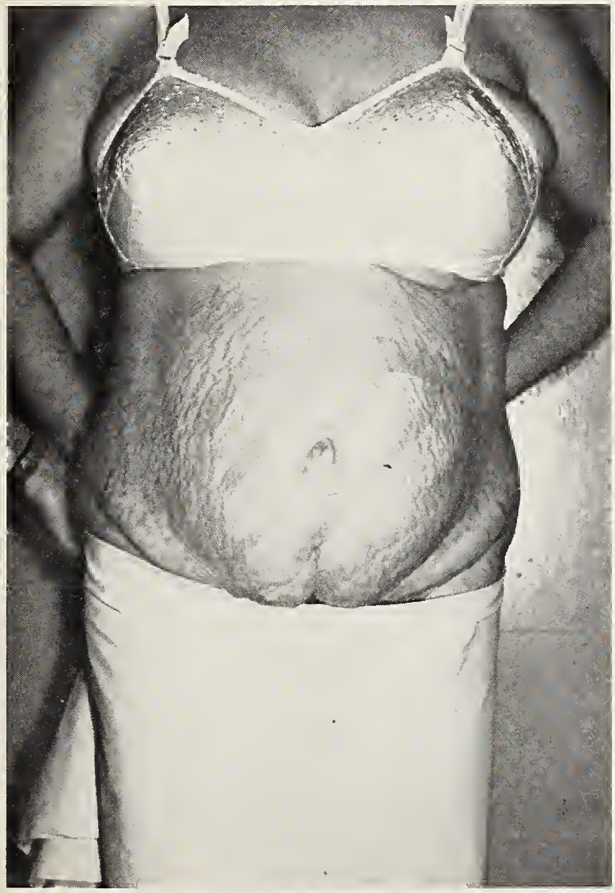

Figure I

Pre-operative photograph showing extent of fecal mass present in the abdomen.

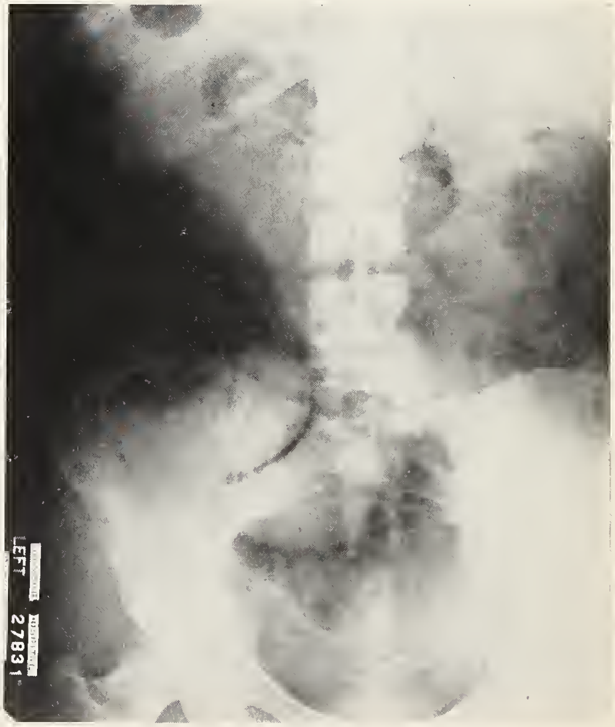

Figure II

Pre-operative plain film of abdomen showing distended sigmoid colon with large fecal masses present.

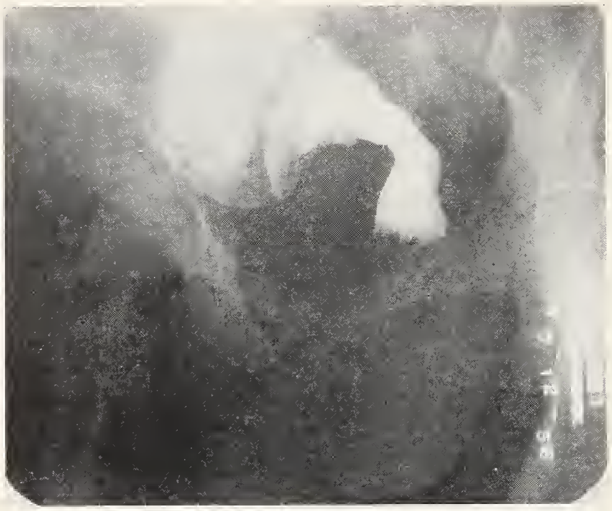

Figure III

Pre-operative barium enema showing characteristic narrow segment in recto-sigmoid with dilated bowel proximal.

enema x-ray of the sigmoid area revealed the characteristic lesion. (Fig. 3). On December 10, 1956, abdomino-perineal proctosigmoidectomy with pull through anastomosis was performed. The specimen is shown in Fig. 4. Pathologic examination confirmed absence of ganglion cells in Auerbach's plexus, throughout the distal two-thirds of the specimen. The patient had an uncomplicated post-operative course with spontaneous bowel movement occurring on the fourth day and has been asymptomatic since that time. Her first post-operative enema was performed in preparation for the follow-up barium enema studies in November of 1957. (Fig. 5).

Surgical correction of congenital aganglionic megacolon in adult patients has been reported infrequently. Abdomino-perineal proctosigmoidectomy with pull-through anastomosis can restore normal bowel function and continence in adult as well as infant patients. Surgical correction in a thirty-three year old housewife is here reported. The result has been excellent to date.

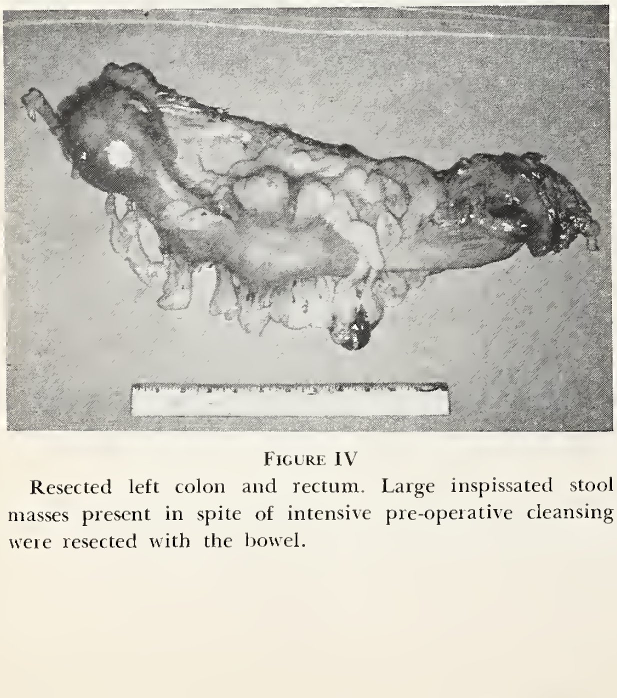

Figure IV

Resected left colon and rectum. Large inspissated stool masses present in spite of intensive pre-operative cleansing were resected with the bowel.

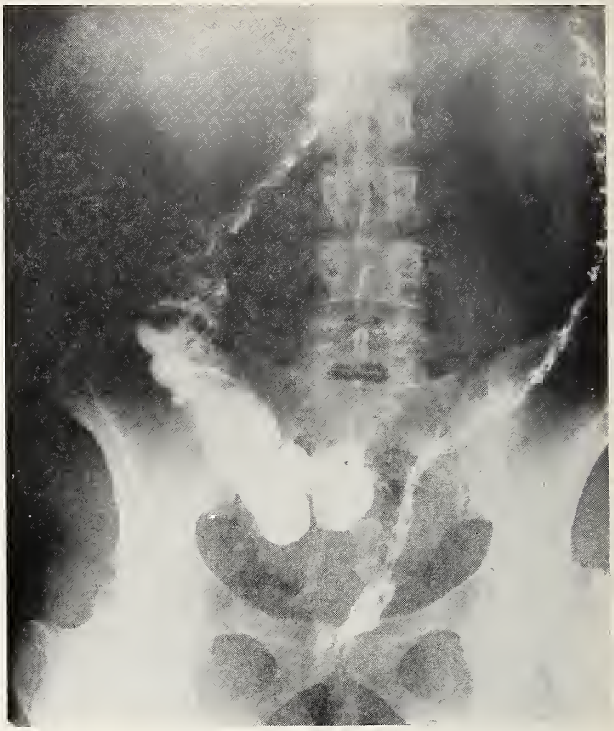

Figure V

Spontaneous evacuation of barium enema showing normal colonic function one year post-operatively.

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A Plan for the Study of Tumor Tissue Derived from Cancer Patients Subjected to Chemotherapy At Uncas-on-Thames

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New Haven

THE projected plan to utilize beds at Uncas-on-Thames for the care and treatment of referred cancer patients offers a unique opportunity for research in the chemotherapy of human cancer.

The chemotherapeutic agents presently available have been derived from the empirical testing of a great many materials based on the response of transplanted mouse tumors and of cells in tissue culture. In some cases, the agents found to be most effective in such tests have been utilized in the treatment of human cancer with amelioration of symptoms but without objective cures. The majority of agents are antimetabolites but the mechanism whereby inhibition or regression of tumors is sometimes effected is unknown.

The screening methods employed in selecting materials for human trial leave much to be desired. There are fundamental differences between the tumors of man and of lower animals, and there is no surety that what obtains in the mouse also applies in man. Obviously, the proper material for the study of human cancer is human cancer—and human cancer can be transplanted to lower animals and thus be made available for experimentation. It would seem that a screening program directed toward the discovery of an agent effective against human cancer could be more efficiently pursued utilizing such material. However, the problem is complicated by a further factor of uncertain significance. Transplanted cancer is cancer growing in a normal individual, and it is known that individuals bearing spontaneous cancers are not normal. For example, mice bearing spontaneous tumors react to a multiplicity of procedures, including injection of infectious agents, tumor transplantation, etc., in a manner entirely different from that of normal mice and this difference is not apparent in mice bearing transplanted tumors. Accordingly, there is no certainty that the action of a particular agent on a tumor borne by a normal animal would be duplicated on a tumor borne by its natural host. It would appear in the last analysis, therefore, that the most desirable medium for the testing of chemotherapeutic agents is the human cancer-bearing patient.

The criterion of effectiveness of a chemotherapeutic agent has been the destruction of the cancer cell and other possible influences on the cancer cell have not been determined. It is known that the growth and spread of cancer depends on many diverse factors—some related to the cancer cell and others to the host. Examples of the former are the ability to invade and metastasize, to withstand passage through the blood stream, to invoke stroma, etc. On the other hand, it is well-recognized that some individuals have borne fully autonomous cancer for years with little inconvenience or ill effects. It seems possible that an agent might bring about changes in a cancer cell to neutralize its malignant properties without actually destroying it or perhaps might modify the host in such a manner that malignant properties do not gain expression. In view of the well-established difficulty of finding chemical agents capable of destroying cancer cells without comparable damage to normal cells, an investigation of such possibilities would seem warranted.

A program of research based on the preceding discussion is suggested in the following paragraphs. A large amount of expensive investigation is involved, some of which could be borne by the writer's present grants, but efficient performance would entail larger sums than are now available. It is anticipated that the major bulk of financial support could be obtained from grants from the chemotherapy panel of the United States Public Health Service.

The proposed program falls into two main divisions: A study of the effectiveness of various agents in the cancer patient and a study of the effectiveness of various agents in the patient's tumor growing in a guinea pig. The suggested method of procedure follows:

Biopsy material obtained prior to the institution of treatment would be transplanted to guinea pigs, both to determine the biological status of the tumor in the patient and to provide material for the test-

This plan was preliminary in nature and designed for discussion. It was not intended for publication and was submitted and printed without the author's knowledge or approval.
H. S. N. G.

ing of different therapeutic agents. In addition, a fragment of the biopsy specimen would be transplanted subcutaneously in the patient concerned.

The object of the latter transplant would be to provide a readily available source of the patient's tumor for assessing the effectiveness of treatment. The subcutaneous position of the tissue would render it comparatively harmless and in the event of rapid growth or discomfort to the patient, it could be readily removed. It is, of course, assumed that the tumors involved would have been judged inoperable before admission and that the prognosis based on available treatment would have been hopeless.

Fragments of tissue would be removed from the subcutaneous growth at various intervals after the institution of treatment. These would be transferred to guinea pigs for a biological comparison with the tissue obtained before treatment and in combination with the clinical condition of the patient and the size of the transplant would provide a means of assessing the influence of the agent involved.

In the event of a biological change in the tumor, the tissue would be studied intensively in relation to mechanisms in the hope that leads for the development of more effacaceous treatment might be uncovered. In any case, the guinea pigs bearing growing tumors would be treated with a number of agents. The agent utilized in the patient furnishing the growth would be employed in a variety of dosages, etc., to discover whether or not the transplanted and spontaneous tumors respond in a similar way and whether or not an alteration in the manner of administration to the patient was indicated. Other agents would also be tested to determine whether the most effective material had been selected. It is also conceivable that different susceptibilities might arise during the course of therapy.

The autopsy would occupy an important position in the program. It would be important that these be performed as quickly after death as possible in order to secure living tumor tissue free of bacterial contamination. From a formal, morphological point of view, particular attention would be devoted to tumor-host relations, the constitutional status of the host, especially as indicated by study of the endocrine system, and variations from the usual in appearance and distribution of the tumor that might relate to therapy. Representative tumor tissue would also be transplanted to guinea pigs and subjected to studies similar to those undertaken at earlier stages of the disease.

Unusual Fingernail Condition Reported

Wearing rubber gloves and using a detergent while scrubbing pans may damage the fingernails.

Three cases of hemorrhage under the nails of men who washed pans in a hospital kitchen were reported today by Dr. Peter I. Long Jr., Dayton, Ohio.

Writing in the current Journal of the American Medical Association, he said the primary causes of the condition appeared to be injury from scrubbing and a change in the acidity of detergent solution trapped in the gloves.

Prompt recognition of the lesions and elimination of the offending agent is necessary, he said, to prevent extensive nail bed damage.

Further study is needed to determine the exact cause of the condition, since its occurrence could have medical and legal significance if the cosmetic and functional impairment were severe.

In arriving at the cause of the condition, Dr. Long said in his preliminary report that several factors stood out. They are:

Pan scrubbing entails a lot of hard scouring which would have a tendency to separate the nail from the nail bed, injuring the tissue.

Only men who wore rubber gloves developed the condition, although they showed no sensitivity to rubber.

The washing solution that became trapped in the gloves was more acid than that in the sink, possibly because perspiration became mixed with it.

Only men who had worked as pan washers for a short time developed the hemorrhages. The fact that they were not accustomed to the work may be an important factor, Dr. Long said. He does not believe that the hemorrhages resulted simply from injury to the tissue. If injury were the only cause, there would be more cases.

Dr. Long is on the staff of the Dayton Veterans Administration Center.

Continuous Twenty-four Hour Vasodilation in the Treatment of Angina Pectoris

Time-disintegration capsules containing
pentaerythritol tetranitrate reduced the severity*
and frequency of angina pectoris attacks

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It has been believed for some time that prolonged therapeutic blood levels of nitrates can stimulate development of a collateral circulatory system in the presence of coronary insufficiency. In animal studies it has been noted that seriously constricted coronary arteries may be uninfluenced, but that connecting intercoronary anastomosis may open with more blood flow after PETN or nitroglycerin.[1,2,3] Russek et al[4] confirmed clinically that PETN was the most effective drug available for prolonged therapy of angina pectoris and coronary insufficiency. Other investigators elaborated on the subject and pointed out that PETN therapy may be the difference between complete absence of symptoms and prolonged illness.[5] In a comparison of two weeks on 14 patients, little difference was noted in the effectiveness of PETN tablets and placebo.[6] The drug also increases the tolerance to exercise, and reduces the need for nitroglycerin.[7]

PETN tablets have been administered to hundreds of patients at this VA hospital during the past several years. The usual dosage was 10 to 20 mg., three to four times daily. Good clinical response often became evident shortly after therapy was instituted. Consistent clinical results encouraged an investigation of the effectiveness of continuous PETN therapy with time-disintegration capsules.

CLINICAL PROCEDURE

A "double blind" study was conducted on 40 men and 2 women with angina pectoris of known severity, ranging in age from 29 to 67 during a period of 9 months in 1956 and 1957. Since it was found that hospitalized angina patients were difficult to evaluate owing to changes in intensity of these symptoms—probably due to adequate rest or other measures—all of the selected group except two were living at home. These patients had an established anginal pattern as to frequency and severity of attacks, relief with nitroglycerin, and tolerance for work or activity. "Placebo reactors" were rejected, as were patients who were emotionally unsuitable. Over one half of the group had been maintained on PETN tablets for more than two years, while most of the other patients were on a regimen that included other coronary vasodilators. Thus, the entire group served as a control factor in comparing: (1) patient response to intermittent vasodilation as obtained by PETN tablets, (2) patient response to continuous 24 hour coronary vasodilation obtained by the time-disintegration capsules, and (3) patient response to placebos.

Patients were told that they would receive two different dosage forms of the same drug, designated only as capsules "A" and "B," both identical in appearance. The code showing which was the active drug and which was the placebo was given only to the Chief of Pharmacy. Medication was to be taken before meals, on arising and again 12 hours later, on a daily schedule. The capsules were alternated at each bi-weekly examination of the group.

RESULTS

No serious side effects, such as nausea or vomiting were reported nor any contraindications established. There was no acquired tolerance to the drug, no changes in blood pressure, blood picture, pulse rate or respiration. Toxicity studies revealed that even when amounts two to three times the therapeutic dosage were given, no untoward reactions occurred. Six patients complained of minor headaches or flushing, two of minor itching of the skin, and two patients reported transient redness in old eczematoid lesions of the skin. All these symptoms disappeared after several days of therapy.

Comparing the effectiveness of PETN tablets and these time-disintegration capsules, it was found that

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* Pentritol Tempules,® and the placebo capsules, used in this study were supplied by The Evron Co., Inc., Chicago.

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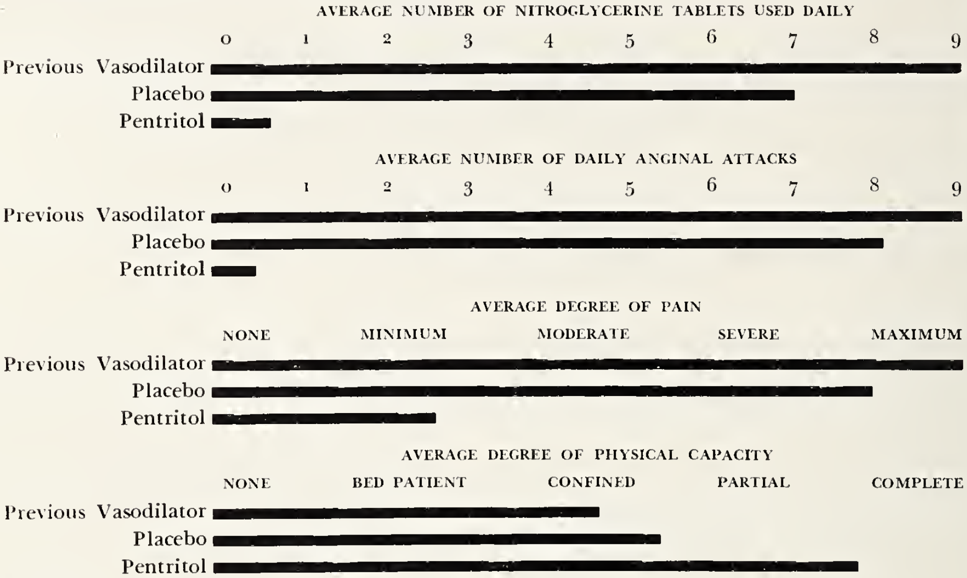
Table I

Comparison of Previous Therapy with Continuous 24 Hour Vasodilation Using Time-Disintegration Capsules* of 30 mg. PETN in Treatment of Angina Pectoris



* Pentritol

each 10 mg. dose of PETN in tablet form attains maximum efficiency in 1 to 1½ hours and maintains its effect for 4½ to 5½ hours.[5] Ordinarily, 10 to 20 mg. of PETN is given three to four times daily. The time-disintegration capsules, each containing 30 mg. of PETN in pellet form, are processed to release three 10 mg. doses at predetermined intervals. The initial dose dissolves immediately, the second, four hours later, and the remaining dose eight hours after ingestion. Since 10 mg. of PETN is effective for 4½ to 5 hours, each capsule provided at least 12 hours uninterrupted coronary vasodilation.

The clinical results showed that when a daily regimen of one or two PETN time-disintegration capsules were administered in the morning and again 12 hours later, all 42 patients showed improvement in all or several of the following:

1. Nitroglycerin requirements reduced or eliminated.
2. Fewer or no angina attacks.
3. Pain reduced or eliminated.
4. Capacity for physical activity increased.

In addition, many of the patients slept more comfortably, and were free from fear and actual occurrences of nocturnal angina attacks. In contrast, the patients who took the placebos for the initial period showed little or no response. When placebos were substituted for the active drug in eleven patients they relapsed and had to be either hospitalized or confined to bed at their home.

A number of patients were rehabilitated sufficiently to engage in useful work or to actively enjoy retirement. Patients who had shown little progress through previous years on a daily regimen of up to 80 mg. of PETN taken in tablet form, responded favorably to the routine administration of a 30 mg. time-disintegration capsule given every 12 hours. Patients with the most severe anginal symptoms were those most clearly benefited by Pentritol Tempules. They also were the patients most seriously handicapped while using the placebo.

Nitrate blood levels have been found raised in patients and animals exposed to toxic levels of PETN fumes or powder as with munitions workers who had severe vasodilation.[8] This led Bjerlov[9] to use PETN in place of nitroglycerin, restricted during the war, in treating angina.

The general condition seemed to improve in some patients with associated cor pulmonale, pulmonary emphysema, paroxysmal ventricular tachycardia, frequent premature beats, peripheral and cerebral vascular disease. This improvement was shown by greater ease of breathing and increased activity tolerance, by more freedom from disturbing rhythms, and improved circulation to ischemic fingers, legs and feet.

PETN time-disintegration capsules were taken in conjunction with digitalis preparations, quinidine, thyroid, alcohol, salicylates, reserpine, antibiotics, prednisone, codeine, dicumarole, and barbiturates without adverse effects.

SUMMARY AND CONCLUSIONS

As noted in the chart continuous 24 hour coronary vasodilation with time-disintegration capsules containing 30 mg. of PETN each, proved beneficial in reducing severity of pain and the frequency of attacks in treatment of angina pectoris. Although the table seems to indicate that the placebo was more effective than the previous vasodilator used, such is not the case. These are average figures, drawn from the entire statistical record. Initially, the case histories indicated a poor response to placebo with improvement noted toward the final phase. It is surmised that uninterrupted coronary vasodilation stimulated development of a secondary coronary circulatory system reducing frequency and severity of attacks, even during intervals when on placebo. Improvement was reported by all 42 patients participating in this double-blind study. Ease of usage minimized unmedicated intervals due to delayed or forgotten medication. This continuity of medication lessens the danger of coronary flow being interrupted by vasospasm or vasoconstriction. For 1½ hours following ingestion of a long-acting PETN tablet, the patient may be especially vulnerable to angina. This is a recurrent problem on arising, when the early morning rush often precipitates an attack. However, the repeated vasodilation provided by the time-disintegration capsule taken the previous night apparently controlled these early morning episodes.

Some minor side effects appeared, but they were transient and easily controlled.

Some patients who had shown little response to other vasodilators, including tablets of PETN, improved considerably when they were maintained on one or two PETN time-disintegration capsules given every morning and evening.

This medication proved a beneficial adjunct in managing angina pectoris, with or without accompanying coronary disease.

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Merry Christmas

Clinical Aspects of Acute and Chronic Pancreatitis

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Pancreatitis has been the subject of considerable investigation and discussion recently. The vagaries and obscure manifestations of the acute and chronic phases of the disease delay early diagnosis and produce constant challenges to the clinician. An attempt will be made to discuss the known factors that enter into the symptomatology.

The extent of the edema, hemorrhage, necrosis and suppuration present in acute pancreatitis determines in part the severity of the clinical picture. With acute edematous pancreatitis the clinical course is usually benign and only rarely fatal; but with progression to the acute necrotic and hemorrhagic stage, shock, fever and leukocytosis may ensue, leading to a critical illness.

ETIOLOGY

The "common channel" theory of Opie has been most vigorously propounded by Doubilet and Mulholland[1] and relates to the belief that reflux of concentrated bile into the pancreatic ducts occurs when Sphincter of Oddi spasm or obstruction is present. This activates trypsinogen and produces an inflammatory reaction with resulting edema and necrosis. Obstruction at the Ampulla of Vater can occur with a stone, tumor, a parasitic worm, as well as other local conditions. There seems little doubt that gluttony and alcoholism are contributing causes. The role of alcohol has been shown to be mediated by its local effect in increasing the gastric secretion of acid and histamine. This stimulates secretin formation and produces sphincteric spasm with resulting serum amylase elevation. Intravenous alcohol on the other hand has no effect on the enzyme level. Postmortem studies of alcoholics have shown edema of the duodenal mucosa and papilla of Vater.[2]

The production of acute pancreatitis in animals by administration of ethionine[3] suggests that protein deficiency may interfere with enzyme formation. (Ethionine inhibits the incorporation of radioactive methionine into the proteins of some tissues).

Recent work by Zollinger *et al*[4] has shown that incubation of pancreatic juice in the gallbladder for 24 hours seems to allow greater flow of the mixture into the pancreas at lower pressures, perhaps a factor of viscosity.

Rousselot and others believe that a major cause of both acute and chronic pancreatitis is biliary calculus disease and cholecystitis operating as a trigger mechanism. The cholecystectomy done concomitantly with sphincterotomy is believed to be most beneficial.

Other causes of pancreatitis include intraductal obstruction within the gland, trauma (abdominal blows), electric shock, operative injuries (in resection of duodenal ulcer or transduodenal exploration of the common duct), vascular disease such as panarteritis nodosum or arteriosclerosis. The production of pancreatitis by prolonged administration of mecholyl to dogs suggests vascular disturbances due to autonomic imbalance. In actual fact, acute episodes are often seen during periods of severe emotional crises.

Secondary pancreatitis has followed scarlet fever[5] as well as the commonly known association with mumps. It has been noted with morphine poisoning[6] and with methanol poisoning.[7] The excrutiating abdominal pain is due to hemorrhagic pancreatitis with necrosis of vessels. It follows a latent period of 24-48 hours and is probably related to breakdown products of methanol oxidation such as formic acid and formaldehyde. Intravenous sodium bicarbonate is most useful in treating the resulting acidosis as well as the abdominal pain and visual disturbances.

An interesting type of infectious pancreatic necrosis has been reported in brook trout in Eastern United States.[8] Death followed an epidemic of enteritis and was due to diffuse pancreatic necrosis in these fish. A selective type of pancreatic disease has been experimentally produced in adult mice using Coxsackie virus (Connecticut S Strain).[9]

A relationship between essential hyperlipemia and acute relapsing pancreatitis has been previously suggested[10] and may relate to alterations in the physical state of the serum lipids leading to vascular occlusions by the clumped lipid particles.

These points emphasize that much remains to be learned about the etiology of pancreatitis.

Presented at the Meriden Hospital Staff Meeting February 26, 1958.

CLINICAL FEATURES

The acute attack of pancreatitis often is bizarre and the diagnosis is said to be incorrect in two of five instances. Confusion with the picture of a perforated viscus, an acute cholecystitis, appendicitis, ectopic pregnancy and coronary occlusion often leads the most astute clinician into error.

A high index of suspicion in a patient presenting with sudden onset of epigastric pain often radiating to the back in either girdle-like fashion or directly through the subxiphoid area will aid in diagnosis. The patient characteristically arches his spine and may assume the knee-chest position in an attempt to obtain some relief. This may relate to the perineural inflammation about the pancreas. The radiation of pain often follows anatomical pathways, and disease within the head of the pancreas characteristically produces predominately right upper quadrant and scapular distress, whereas inflammation primarily in the tail may produce left upper quadrant radiation of pain.

Nausea and vomiting are common; constipation due to reflex ileus and the chemical peritonitis is seen but diarrhea can also occur. Chills and fever with collapse are more apt to occur in the hemorrhagic type of pancreatitis.

The physical signs are similarly apt to reflect the intensity of the inflammatory process, i.e., edematous, hemorrhagic or suppurative. Some patients appear in shock with a peculiar patchy cyanosis (livido reticularis). Jaundice may be present. Its occurrence may be secondary to edema of the pancreatic head on the common bile duct; to obstruction from inflammatory nodes at the porta hepatis; to an associated ascending cholangitis.

Edema and extravasation of blood retroperitoneally may produce flank discoloration (Grey Turner Sign) or discoloration about the umbilicus (Cullen Sign). However, these are not pathognomonic of pancreatitis alone and may not appear for five to seven days.

Pleural effusions occur and may be misleading. Detection of amylase in the fluid (often port wine in color) is diagnostic. The presence of ascites may be diagnostically helpful in the same manner since the ascitic fluid amylase may remain elevated two to four days after the serum level returns to normal. Yellow turbid fluid is indicative of the acute edematous type of pancreatitis and reddish brown fluid suggests the hemorrhagic variety.

An abdominal mass may be palpable and suggests the presence of a pseudocyst. Other signs due to organ displacement and encroachment from the mass may be apparent. Colonic stenosis has been reported[11] as well as G.I. bleeding.

Splenomegaly due to inflammatory thromboses of the splenic vein can produce secondary hypersplenism. Over and above this background, an anemia of unknown origin due to some hemolytic factor has been reported.

In those patients with recurrent relapsing pancreatitis, depression and hypochondriasis with narcotic addiction may be prominent and further obscure the underlying process.

LABORATORY DATA

The presence of leukocytosis has already been alluded to and is often out of proportion to the fever. A pronounced lymphopenia has been uniformly present.[12]

While a serum amylase elevation over 500 Somogyi units is almost incontrovertible evidence of pancreatitis, false elevations are known to be present in perforated peptic ulcer (interestingly present when the *anterior* wall as well as the posterior wall has been ruptured) in advanced uremia, in stab wounds, in high intestinal obstructions and peritonitis of diverse origins. Levels higher than 500 units, however, are never found. An elevated amylase prolonged beyond the 10th day is usually indicative of some complication such as abscess or cyst.

The serum lipase (expressed as the amount of N/20 Na OH required to neutralize the fatty acids produced by lipase on a substrate, tributyrin) [13] is helpful in diagnosing those cases that are seen several days after their initial symptoms when the serum amylase has already returned to normal. Levels over 1.0 cc N/20 Na OH are diagnostic. The fasting blood sugar is elevated in approximately one third of cases; some patients go on to frank diabetes after their acute, initial attack.

When shock is present it is related to a diminished blood volume and for this reason will respond to expanders, whole blood, and especially to serum albumin. The beneficial effect of the latter has been shown to be related to the expansion of plasma volume and not trypsin inhibition.[14]

Plasma antithrombin titer is elevated in approximately 90 per cent of cases and further aids in differentiating the acute surgical abdomen or obstructive jaundice.[15] This titer is felt to reflect the trypsin concentration.

Liver function tests may show the pattern of obstructive jaundice. The serum glutamic oxalacetic transaminase in acute pancreatitis has been of little help in diagnosis, since it has been shown that elevations are predominately related to hepatic dysfunction and bile duct obstruction, rather than to pancreatic tissue necrosis.[16]

Serum lipid determinations may occasionally unmask an associated essential (familial) hyperlipemia. The presence of skin xanthomatosis and lipemia retinalis may be suggestive of this clinical entity.

Adjuvant laboratory studies include:

Stool studies for steatorrhea have been recently refined by the use of tagged neutral fat (I_{131}—triolein) and fatty acid (I_{131}—oleic acid).

Duodenal drainage with secretin and vagal stimulation may be of help in recurrent, relapsing pancreatitis.

Serum electrolytes may be altered with hypokalemia often a common finding, especially in those cases requiring nasogastric suction. Hypocalcemia may occur approximately two to five days after the onset of abdominal symptoms and is often a bad prognostic sign.

The electrocardiographic changes due to the altered serum calcium or potassium may be misdiagnosed as indicative of coronary disease and the patient so treated.

Serum magnesium is said occasionally to be low in patients with pancreatitis. Since the etiology of tetany is not always attributable to hypocalcemia, this hypomagnesemia on the fourth or fifth day of the illness may or may not be important.[17]

X-RAY DATA

X-ray data are often helpful. The plain scout film of the abdomen may disclose segmental ileus, the so-called "sentinel loop". Pancreatic calcifications can occur one to twenty-two years after the initial attack of pain. These calcifications are composed of $Ca\ CO_3$ or tribasic $Ca\ (PO_4)_3$ within the ductile system.

The left renal and psoas shadow may be obscured by the retroperitoneal edema or ascites. The juxtapositioned organs such as the stomach, colon or diaphragms may all be displaced.

An upper gastrointestinal series may reveal an edematous ampulla of Vater, the "papillary sign" of pancreatitis. The duodenal loop may be enlarged or show great irritability with multiple skip areas of the valvulae conniventes.[18]

Cholecystography done before a time lapse of approximately one month after the acute attack may falsely show nonvisualization.[19]

The recent introduction of Duografin permits simultaneous cholecystocholangiography and pyelography by a single injection for use in patients with upper abdominal pain when rapid diagnosis is desirable.[20]

MEDICAL MANAGEMENT

The main objectives relate to reducing the agonizing, unrelenting pain and to suppressing pancreatic function. For the former, Demerol ® is most widely used. Many studies have shown an elevation of serum amylase after morphine and codeine. Recent double blind studies[21] have shown that morphine does not consistently produce Oddi spasm when introduced directly by T-tube.

Amyl nitrate, intravenous aminophylline and nitroglycerin may aid in sphincteric relaxation.

Intravenous procaine has been very efficacious in relieving pain but ascorbic acid should be added to the infusion to reduce the occasional side effects of procaine, especially in malnourished individuals.

Splanchnic nerve block and epidural block using a small ureteral catheter have been advocated.

Pancreatic hormonal stimulation can best be prevented by constant nasogastric suction; anticholinergic drugs and nonabsorbable alkali aid in reducing the total gastric acidity passing into the duodenum.

Therapy of shock is directed to expanding the reduced plasma volume. The liberal use of serum albumin has significantly reduced the overall mortality from 19.5 per cent to 6.5 per cent.[22]

Careful fluid and electrolyte replacement is imperative, using Ca, K and Na ions as indicated. Diabetics are specific challenges since hypoglycemia with resulting gastric hyperacidity must be carefully avoided.

Antibiotics are often used but probably of little benefit unless secondary infection occurs.

Diamox has been tried and may induce closure of fistulae and reduction in the size of some pseudocysts, but it must be given in large doses (5 to 7 Grams).[23] Its inhibition of carbonic anhydrase seems to depress pancreatic response to secretin by diminishing the total fluid volume as well as the total bicarbonate.[24]

The present status of steroid therapy is quite clouded. While intravenous hydrocortisone and ACTH have been reported to produce prompt recovery, several deaths due to pancreatic necrosis in children have been reported.[25] Carone and Liebow[26] found postmortem evidence of a high incidence of acute pancreatitis with ectasia of the pancreatic acini, presumably steroid induced.

The French literature indicates that artificial hibernation may help arrest an acute episode of pancreatitis.[27]

Surgical intervention should be reserved for therapy of the complications of the disease. This includes internal drainage of pseudocysts and abscesses (by Roux—n—Y anastomoses); perhaps sphincterotomy in conjunction with polyethylene tube drainage of cysts; splanchnicectomy; when biliary tract disease is associated cholecystectomy is best performed during a quiescent stage. If recent work[4] is substantiated, gall bladder removal may well be indicated in patients with recurrent pancreatitis to remove the reservoir for bile-pancreatic enzyme incubation. Caudal pancreaticojejunostomy for recurrent episodes of pancreatitis has become popular.[28]

Supplementary therapy after the acute episode has subsided includes small frequent feedings, avoiding alcohol, excessive fat, and eating while under emotional stress. When malabsorption is a part of the recurrent, relapsing type of pancreatitis, crude pancreatin or Viokase with crystalline vitamins are of benefit.

Miscellaneous points of interest include the recent recognition of a possible hereditary form of pancreatitis.[29] It is transmitted as an autosomal dominant gene in certain families. Pain need not be an essential part of the clinical picture and steatorrhea, calcifications and diabetes can all occur "silently".[30] It has been pointed out that some 25 percent of patients with calcareous deposits may have associated tuberculosis.[31] This is almost suggestive of the situation with the similarly malnourished postoperative gastrectomy patient.

It is hoped that further investigations and clinical observations will aid in a better understanding of the malady discussed.

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Not To Be Forgotten Aids in the Treatment of Antibiotic Resistant Staphylococcus Skin Infections

William B. Swarts, m.d.
Greenwich

In common with hospital practice, doctors are seeing in their offices resistant cases of furunculosis. Usually, the history is characterized by the use of many antibiotics with no abatement in the appearance of the painful boils. Other members of the family are frequently afflicted. Complete medical studies, including sugar tolerance tests, show no abnormalities.

In this modern day of medicine, when one is confronted with no response of a superficial skin staphylococcic infection to either injection or oral administration of an antibiotic, it is sometimes forgotten that management before the antibiotic era was excellent, and the methods and remedies used did not foster a breed of resistant bacteria. A list of methods which are of paramount importance in treating these cases follow:

1. Rigid personal and environmental hygiene.

a. As far as possible a complete daily change of clothing and bed linen. The laundering of these articles in the modern automatic washer, with sufficient hot water and detergents, provides adequate antisepsis. If the articles are ironed, the heat has a further sterilizing power.

b. A daily tub bath should be taken using a bar soap containing hexachlorophene. A good example available at pharmacies is Gamophen ® soap. After drying with a clean towel, the dabbing on the entire skin surface of rubbing alcohol, or an aqueous solution of 1:3000 bichloride of mercury, reduces the surface bacteria population.

c. When the bearded region is involved, a new razor blade daily and brushless shaving cream containing hexachlorophene should be used for daily shaving. Electric razors present problems in adequate sterilization after use, and the mechanics of using an electric shaver is more traumatizing to the infected areas.

d. Women should discard all powder puffs and substitute disposable powder puffs or wisps of cotton, if face powder is used. The danger of contamination of face creams, rouges, cake type powder and deodorants should be made clear to these patients.

e. People who are afflicted with furunculosis, should keep their nails short and use a nail brush and Gamophen soap three of four times daily. After a thorough scrubbing, a cold cream containing 3 per cent ammoniated mercury should be massaged under the nails and on the hands so that, if there is any manipulation of the skin, there is less chance of staphylococci being spread.

f. In the environment, special attention must be given to bathroom fixtures. It is obvious that the very common involvement of the buttock areas requires the use of Lysol solution on the toilet seat after use. The wash bowl and tub should be scoured and then rinsed with a solution of Lysol after use by an infected person.

2. Local use of antiseptic materials.

a. Solutions for antiseptic washes and packs, i.e., 1:2500-1:3000 aqueous solution of bichloride of mercury; also 70 per cent alcohol.

These solutions are useful for treatment of infected areas and also to prevent spread of the infection to uninvolved areas. These are simply dabbed on three or four times daily. Where an extremity is involved, these solutions may be used as a wet dressing three or four times daily for one hour.

b. Lotions incorporating antiseptics, i.e., resorcin, red mercuric sulfide (cinnabar and sulfur).

A good example of such a lotion is

Cinnabar (red mercuric sulfide)	1.0
Sulf. Precip.	10.0
Zinc oxide	
Talc, aa	15.0
Glycerin	20.0
70% alcohol, q.s.a.d.	100.0

This is applied with an ordinary one-half inch flat brush three or four times daily. This is especially useful in body areas where there is much hair.

Another useful lotion is

Resorcin	2.4
Burow's solution	15.0
Zinc oxide	30.0
Talc	30.0

Glycerin	24.0
Calcium water q.s.a.d.	120.0

This is also applied with a flat one-half inch brush several times daily.

c. Ointments containing ammoniated mercury, sulfur and resorcin.

Ammoniated mercury	3-8%
Hydrophilic ointment (USP) q.s.a.d.	30

Sig: Apply to infected areas two or three times daily.

Sulfur precipitate	3-5%
Resorcin	2-4%
Hydrophilic ointment (USP) q.s.a.d.	30

Sig: Apply to affected areas two or three times daily.

3. The use of non-specific proteins to increase the patient's resistance. The exact mode of how these work are unknown but clinical experience has found them to be of value, i.e., autohemotherapy, 10cc at weekly intervals injected deep into the buttocks, and intramuscular injections of boiled milk once or twice weekly, starting with 0.5cc and increasing the dose by 0.5cc to a dose of 5cc. This can be given once or twice a week.

4. Attempts to increase resistance by vaccines and bacterial products. An autogenous vaccine may be made but practically the same results seem to be obtained by the use of staphylococcus toxoid in ascending doses.

An intradermal test is made with 0.05cc. Occasionally there is marked sensitivity to this dose and then the product is diluted ten times with a suitable diluent. When the amount of the initial dose has been determined the dose is increased weekly by 0.05cc until 1cc is reached. The doses may be given either intradermally or subcutaneously. Some authorities feel that the intradermal route is more effective. However, when the larger doses are reached it is generally more convenient to change to the subcutaneous route. A satisfactory product is staphylococcus toxoid (Lederle).

5. Fractional x-ray therapy to localized areas of recurrent infection. 75r can be given at weekly intervals from four to six times with good results; when given with care there is no fear of any x-ray sequalae.

SUMMARY

Measures are outlined which, if applied diligently and persistently, clear most cases of resistant staphylococcic infections of the skin.

167th ANNUAL MEETING

CONNECTICUT STATE MEDICAL SOCIETY

APRIL 28, 29, 30, 1959

HAMDEN HIGH SCHOOL, HAMDEN

The Use of Aristocort in Diseases of Allergy

JOSEPH I. EPSTEIN, M.D. AND HENRY SHERWOOD, M.D.
Middletown

THIS report deals with the use in 23 patients of a new synthetic corticosteroid. The generic name is triamcinolone and the trade name is Aristocort. The chemical formula is 9 alpha-fluoro-16 alpha-hydroxy delta-1-hydrocortisone diacetate.

Animal experiments[1] would seem to indicate that this steroid by the rat liver glycogen assay is eighteen to thirty-six times more potent than hydrocortisone. In the adrenalectomized rat this compound produced no sodium retention.

Hellman *et al*[2] found, from the use of Aristocort in rheumatoid arthritis, that there was little or no change in nitrogen, sodium, potassium, or calcium balance in the usual therapeutic dosage used.

METHODS

All patients in this study had severe allergic manifestations accompanied by complicating diseases, so as to make control by conventional therapy impossible at this time.

Aristocort was administered to 23 patients for from 4 to 12 weeks. Twelve of these patients had been on previous steroid therapy (prednisone or prednisolone). The remaining 11 had had no previous steroid therapy. Of the 23 patients, 12 were primarily asthmatics, 2 had perennial rhinitis, 1 had a drug dermatitis, 1 had an id reaction, 5

TABLE I
COMPARISON OF PREDNISONE AND PREDNISOLONE WITH ARISTOCORT IN ASTHMA

PRIOR STEROID THERAPY PREDNISONE AND PREDNISOLONE				ARISTOCORT THERAPY						
DIAGNOSIS	DURATION OF THERAPY IN WEEKS	DOSE RANGE IN MGMS.	SIDE EFFECTS	DURATION OF TREATMENT IN WEEKS	DOSAGE IN MGMS.	WT. INCREASE OR DECREASE	B.P. INCREASE OR DECREASE	V.C. INCREASE OR DECREASE	CLINICAL RESULTS	SIDE EFFECTS
Asthma	18	5–20	None	5	4	0	0	Increase	Good	None
"	7	15–20	None	5	8–10	0	Decrease	Increase	Excellent	None
"	6	20–30	Inc. wt. Indigestion Heartburn	7	4–16	0	0	Increase	Good	None
"	104	15–30	Moon Facies Edema inc. B. P.	10	6–12	Decrease	Decrease	0	Excellent	None
"	104	10–40	Bloating Moon Facies Inc. wt.	10	6–12	Decrease	Decrease	0	Excellent	Bloating, Indigestion Nausea
"	17	20–30	None	4	10	0	0	0	Excellent	None
"	19	10–20	Indigestion Bloating	12	6–10	Decrease	0	Increase	Excellent	None
"	12	10–15	Indigestion Bloating Moon Facies, inc. wt.	12	8–10	0	Decrease	Increase	Excellent	None
"	4	15–20	Inc. B. P.	10	10	0	Decrease	Increase	Good	None
"	52	10–30	Nausea, Bloating	12	6–12	Decrease	Decrease	Increase	Good	None
"	156	5	None	6	2–6	Decrease	0	Increase	Excellent	None
"	104	10–40	Moon Facies Edema Hirsutism Inc. B. P.	12	11–16	Decrease	Decrease	0	Excellent	Nausea

The Aristocort used in this report was supplied by the Research Division of The American Cyanamid Company, Lederle Laboratories, Pearl River, N. Y.

had chronic eczema, 2 had chronic urticaria. All patients were also receiving specific immunization therapy as well as symptomatic drug therapy. Antibiotic therapy was given as necessary. Patients on adjunct therapy prior to the use of Aristocort were maintained on that previous therapy.

In evaluating our patients we relied on changes in symptomatology, physical findings, blood pressure, weight, and vital capacity studies when indicated. All side effects were looked for carefully. Each patient was seen at least once weekly. It is our intent to evaluate this new steroid for its antiinflammatory properties and its side effects.

RESULTS

Table I is a resumé of the comparison of Aristocort with prednisone and prednisolone in 12 patients with severe chronic asthma. These 12 patients had been on prednisone or prednisolone therapy for from 4 to 156 weeks without good symptomatic control. Eight of these 12 patients had side effects which included sodium retention, gastrointestinal disturbances, moon facies and hirsutism. In the same eight patients on Aristocort therapy from 4 to 12 weeks, two had gastrointestinal complaints which were mild in nature and easily controlled by antacid therapy.

Table II

Aristocort in Perennial Rhinitis

DIAGNOSIS	DURATION OF TREATMENT IN WEEKS	DOSAGE IN MGMS.	WT. INC. OR DEC.	B.P. INC. OR DEC.	V.C. INC. OR DEC.	CLINICAL RESULTS	SIDE EFFECTS
Perennial Rhinitis	6	3-6	0	0	0	Excellent	0
Perennial Rhinitis	5	2-6	0	0	0	Excellent	0

Table II is a resumé of the use of Aristocort in two patients with perennial rhinitis. No side effects were noted and the clinical result was excellent in both patients.

Table III shows the results of Aristocort therapy in allergic dermatoses. This group is comprised of five patients with eczema, one patient with chronic urticaria, one patient with cold urticaria, one patient with a bacterial id of the hands, and one patient with a generalized morbilliform drug rash. Of these nine patients all had an excellent result. In two, a side effect of excessive perspiration was noted. Of the 23 patients, six lost weight, none gained weight, and in 17 no change was observed. The vital capacity increased in nine, and in 14 no significant change was noted. The clinical results achieved were excellent in 18 patients and good in the remaining five.

COMMENTS

The results of this study shows that Aristocort is a potent antiinflammatory agent. Aristocort is apparently twice as potent, milligram for milligram, as prednisone or prednisolone. In the length of time and in the dosage used no serious side effects were noted. None of the patients was kept on a restricted sodium intake. It must be noted that these patients were on Aristocort for only a short period of time, and therefore its capacity to produce peptic ulcer, osteoporosis, or superinfection can not be evaluated at this time. It is our feeling that this steroid will have considerable value in those patients in whom sodium retention has been, or is

Table III

Aristocort in Dermatoses

DIAGNOSIS	DURATION OF TREATMENT IN WEEKS	DOSAGE IN MGMS.	WT. INC. OR DEC.	B.P. INC. OR DEC.	V.C. INC. OR DEC.	CLINICAL RESULTS	SIDE EFFECTS
Drug Allergy	7	2–16	0	0	0	Excellent	None
Bacterial ID	8	4–8	0	0	0	Excellent	Excessive Perspiration
Cold Urticaria	4	10–12	0	0	0	Excellent	None
Eczema	8	1–6	0	0	0	Excellent	None
Eczema	7	2–4	0	0	0	Good	None
Eczema	6	8–12	0	0	0	Excellent	None
Eczema	7	3–4	0	0	0	Excellent	0
Chronic Urticaria	7	7–12	0	0	0	Excellent	Excessive Perspiration
Eczema	4	4	0	0	0	Excellent	0

expected to be a problem, as well as in all other disease states where steroids would be used.

SUMMARY

Twenty-three patients with various allergic diseases were treated from 4 to 12 weeks with Aristocort. This compound was found to have a therapeutic effect, on a weight basis, twice that of prednisone or prednisolone. Side effects were noted in four of the 23 patients studied. These side effects were very minimal.

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35,000 Physicians Take Graduate Training

More than 35,000 physicians last year took graduate medical training in 1,400 American hospitals.

According to the 32nd annual report on graduate medical education prepared by the American Medical Association's Council on Medical Education and Hospitals, the number of medical school graduates taking further training continued to increase in 1957-58.

There were 10,198 graduates serving internships in 1957-58, an increase of 305 over 1956-57, while 24,976 were serving residencies, an increase of 1,964 over the preceding year. The number of hospitals offering training increased from 1,372 to 1,400.

The annual report and an accompanying directory of approved internships and residencies serves two groups of individuals, according to an editorial in the current A.M.A. Journal, in which the report appears.

"It is useful to the recent graduate in medicine who is planning his further graduate training program," the editorial said. "It is of equal or greater use to training program directors and medical administrators dealing with broad aspects of graduate training and concerned with program trends and planning for the future."

Of the available internship positions, only 17 per cent remained unfilled. Eighteen per cent of the residency positions were not filled, the report said. Many intership positions are filled by graduates of foreign medical schools.

The report also showed:

The average number of intern positions for each hospital has increased during the past 10 years from 11.3 to 14.2.

Rotating internships, which must include training on the medical, surgical, pediatric and obstetric services, accounted for 87.6 per cent of the internships offered. The others were either straight internships in one field or mixed in two or three fields.

Church and nonprofit incorporated hospitals offered 78.9 per cent of the available internships; federal hospitals, 4.7 per cent; nonfederal governmental, 15.3 per cent, and proprietary (private), 1 per cent.

The federal hospitals had the highest rate of occupancy, with the Navy and U. S. Public Health Service hospitals having no vacancies.

Hospitals in the United States territories and possessions and those in New England showed the highest rate of occupancy—88 per cent. The region having the lowest rate was the East South Central with 75 per cent.

States with an occupancy rate of 90 per cent or above were New Hampshire, District of Columbia, New York, Colorado, Connecticut, Iowa, and New Jersey.

The average monthly cash stipend paid to interns continued to rise. Hospitals affiliated with teaching institutions raised their stipends from an average of $141 in 1956-57 to $155 in 1957-58. Nonaffiliated hospitals raised theirs from an average of $177 to $197.

Residency training was offered in 26 specialities and in general practice. Residencies in contagious diseases and malignant disease have been discontinued.

Approximately one-third of all residencies were offered in surgery, internal medicine and obstetrics-gynecology. Residencies in aviation medicine, dermatology, obstetrics-gynecology, ophthalmology, and surgery showed an occupancy rate of 90 per cent or higher.

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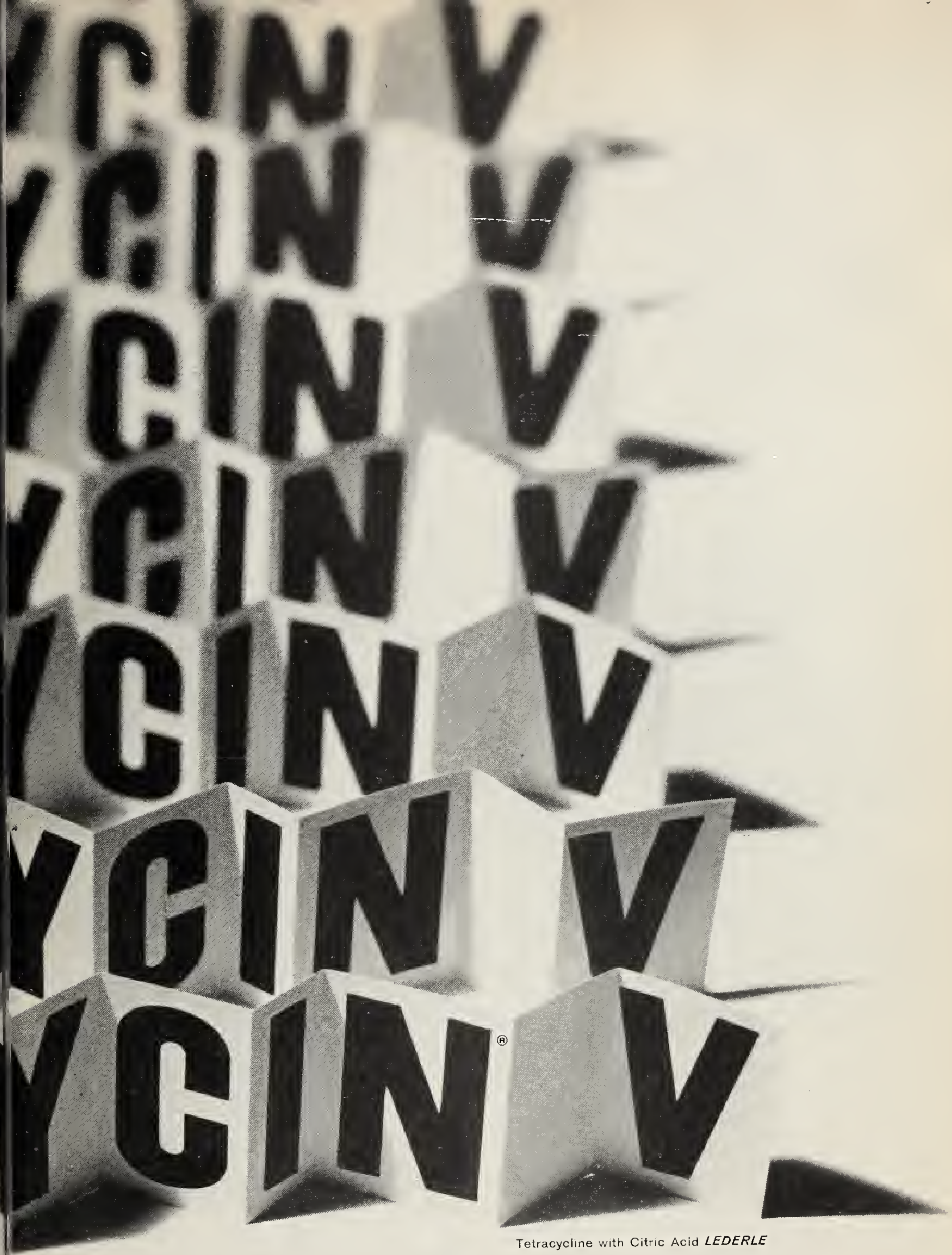

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Anti-Inflammatory Agents

Clinical research has had a tremendous effect in the field of Chemistry after phenomenal advances in steroid synthesis especially cortisone and hydro-cortisone. Steroid chemists directed their attention to the modification of the hormone structure with a view of improving their therapeutic properties.

During the first few years after Hench's discovery there developed laboratory methods suitable for the evaluation of acute inflammatory activity. Two methods came in use for this purpose. A direct one—the cotton pellet implantation and the granuloma pouch. The second method—an indirect one, is the determination of their glucocorticoid activity by measuring the deposition of liver glycogen, eosinopenia and thymus involution.

The first synthetic compound produced to posses potency higher than that of hydrocortisone was 9 a fluorohydrocortisone. Although its anti inflammatory activity is ten-fold greater than that of hydrocortisone, it unfortunately possesses considerable salt-retaining properties at levels necessary to produce an anti-rheumatic response. This has been confirmed by Boland and the Minnesota Group. This correlation between animal experiments and anti-arthritic activity in patients overcame the prevailing prejudice that the structure of hydrocortisone was too specific to tolerate modification without inactivation.

The first of the modified corticoids to be employed extensively in the treatment of rheumatoid arthritis were the two derivatives prednisone and prednisolone. In these compounds the anti-inflammatory and glucocorticoid activity are enhanced by a factor of four. At the same time both show a reduction in the retention of salt in the animal as compared to hydrocortisone and cortisone.

There thus opened a field for synthesis of compounds possessing anti-inflammatory activity, corticoid activity with and without salt retaining properties. Every physician at one time or another has encountered patients in need of glucocorticoid activity with salt retention as in cases of Addison's disease or patients in need of anti-inflammatory and glucocorticoid activity without salt retention as in Rheumatoid arthritis. That the chemists are well on their way to a synthesis of steroids that will offer these specialized effects can be seen from Fried's analysis of the steps taken and the success achieved thus far.

It is evident that although several years ago there were but two active agents cortisone and hydrocortisone now there are being developed an increasing number of highly potent anti-inflammatory substances. The important question remains whether steroids are destined to remain in the forefront of rheumatoid arthritis therapy. The chemists by concentrating on steroidal anti-inflammatory activity have exploited a lead that thus far has been the most promising. Nevertheless one can almost predict that there will appear entirely new types of chemical structures from which anti-inflammatory agents will be drawn in the future.

The original observation which aroused the interest of Hench and his collaborators in cortisone was that during pregnancy the arthritic woman experiences a tremendous improvement in the symptoms of her disease. Nevertheless it is significant that this improvement is not accompanied by any side effects usually associated with hydrocortisone therapy. May this not indicate that an as yet unknown factor possibly of placental origin could be responsible for these effects?

It is evident that a considerable amount of research largely in the laboratory of the pharmaceutical industry is now being devoted to the chemotherapy of the rheumatic diseases. These efforts together with those of clinical investigators should bring about further advances in this important field.

Joseph Fried, Ph.D. Transactions Second National Conference on Research and Education in Rheumatic diseases Dec. 1, 1956.

L. H. N.

The Danger of Routinism

"Habits are at first cobwebs then cables"
Spanish proverb.

It is not the purpose of the writer to condemn routine, for as Alexander Pope wrote "order is Heaven's first law", but to point out that a fixed, regular method of doing things, even though admirable in principle, is capable in practice of becoming too fixed and rigid and should therefore be carried out with a certain amount of leeway. Circumstances alter cases and, as Matthew Baillie said many years ago, "it is very seldom that diseases are found pure and unmixed, as they are commonly described by authors." Every experienced physician knows that the writer of a medical textbook must try to produce a composite picture of each disease he discusses, even though this is sometimes a difficult task. The hindrances to presenting characteristic disease pictures are reflected by the use by the French of the term "formes fruste," the atypical and abortive forms of disease, and by William Osler's sage remark that in medicine we often see the play of Hamlet with the part of Hamlet missing. There is a tendency in modern routinists, thanks to the phenomenal technical advances made during the century, to employ an excessive number of such procedures, an expensive and time-consuming process to the uninsured patient.

This is not to deny that some technical test may turn out to produce the last link in the diagnostic chain, but a knowledge on the part of the doctor of the diagnostic probabilities can usually be obtained by a careful study of the history and the physical findings plus a few basic laboratory or technical tests. We assume that routine blood and urine tests and, if indicated, sputum examination and a test meal will always be done and that x-ray examinations and electrocardiography are, as a rule, desirable, but we maintain that the *routine* use of many other technical procedures can be overdone, especially if the examining physician lacks a knowledge of the possibilities, an essential in arriving at a differential diagnosis.

G. B.

Carcinoma of the Female Breast

An ever increasing number of new cases of carcinoma of the breast places this disease among the most frequently occurring malignancies of the human female. Despite the commonplace appearance of this cancer, very little has been learned of its etiology and pathogenesis. The physician of today is as ill prepared as his forebears to offer an explanation of the role of heredity, trauma, previous benign breast disease, and hormonal imbalance in the development of breast carcinoma. The first proposed radical surgical approach of mastectomy in continuity with underlying chest wall musculature and axillary lymph node dissection has remained for many decades the operation of choice. This has been not so much because the operation is a good one, but rather because nothing better has been developed. Very radical operations involving resection of the chest wall to gain better margins around known lymph node extension, other than to the axilla, have met with some succes in specialized centers but have found no role in the hands of the ordinary surgeon because of the high morbidity and mortality. Association of high voltage irradiation and mastectomy has found favor with groups who have followed the lead of the Scotsman, McWhirter. This form of therapy, however, still lacks confirmation as to its efficacy in a statistically valid environment.

Metastases continue to develop in widely scattered anatomical sites during the weeks, months and years after primary therapy. Treatment of these patients presents many problems and the fact must be faced that by present standards these people are incurable. Irradiation and hormonal alterations appear to be of some palliative value. A program of management of patients with metastatic breast cancer must be carefully and patiently planned. Much can be lost by administration in helter skelter fashion every mode of therapy available. Much can be done, however, to prolong life in relative comfort if each modality is applied as symptoms develop and the disease shows objective evidence of progression. One of the most important and frequently neglected spheres of therapy is the development of a firm psychological bond between patient and physician which can give the sickest woman peace of mind and hence some enjoyment of life.

The biochemist must supply answers as to the basic metabolism of cancer cells before cure will be possible. Perhaps viral agents will someday be incriminated allowing vaccine development for ultimate protection. Until that time the physician must continue along a poorly charted road hoping that a better situation is just ahead.

I. G.

Dangers of Drinking "Scrap Iron" Told

Use of "scrap iron," a new bootleg drink composed mainly of rubbing alcohol and mothballs, produces bizarre and serious mental effects, three South Carolina scientists said today.

Fifty cases of severe intoxication from the drink in a three-month period were reported in the current (Nov. 1) Journal of the American Medical Association.

Composed of yeast, cracked corn or corn meal, sugar, isopropyl (rubbing) alcohol, and mothballs, the concoction is made in galvanized drums which apparently give it a metallic taste; hence the name "scrap iron." Clorox, a commercial cleaning preparation, is frequently used as a catalyst.

About the addition of mothballs to the mixture, the authors said, "The only scientific reason elicited for this addition was the statement of those patients consciously aware that its addition added some 'kick to the drink.'

"Obviously this is a drink of 'voltage rather than vintage,' " they said, urging that steps be taken to hinder the sale of this "toxic substance."

A majority of the patients exhibited definite symptoms of an acute or chronic mental disturbance "out of proportion to the quantity of alcohol consumed."

"Few patients were able to ingest more than one-half pint of scrap iron in six to eight hours and remain conscious. Only chronic alcoholics could drink as much as one pint and remain conscious," they noted. This bears out animal studies which showed isopropyl alcohol to be twice as toxic in all respects as ethyl alcohol (the alcohol found in commercial liquors).

Of the patients, 26 showed symptoms identical to those of delirium tremens from ethyl alcohol. These included restlessness, hallucinations, illusions, extreme apprehension, tremor, and general disorientation. These acute symptoms are usually reversible on abstinence from alcohol.

Five patients had brain symptoms which were chronic, while four had major psychiatric disturbances. Nine were diagnosed as having acute alcoholism and three as being in hypoglycemic shock, which results from an abnormally low blood sugar level. Three others had serious gastrointestinal disturbances.

Many of the patients showed other serious medical problems, including anemia, hypertension, heart trouble, epilepsy, diabetes, and pneumonia.

Most of the symptoms of "toxic psychosis" subsided within several days simply with the use of fluids, vitamins, and sedation or tranquilizers, the authors said.

In conclusion they warned that the consumption of "scrap iron" could become more prevalent because of its cheapness (isopropyl alcohol recently was sold for nine cents a pint) and that its prolonged use would produce effects similar to those of ethyl alcohol "but of a more severe degree in a shorter period of time."

The authors are Richard H. Gadsden, Ph.D., assistant professor of chemistry, and Drs. R. Ramsey Mellette and William C. Miller, Jr., assistant psychiatric residents, Medical College of South Carolina, Charleston.

Connecticut State Medical Society

Executive Secretary

Dr. William Raymond Richards was elected to the post of executive secretary of the Connecticut State Medical Society in April, 1958. He was born in Boston, Massachusetts in 1908, received his A.B. from Cornell University in 1931 and his M.D. from Cornell University Medical College in 1935. After two years of interneship at Bellevue Hospital, New York City, he served at Princeton University as a student health physician following which he returned to Bellevue Hospital and completed residency training in obstetrics and gynecology.

On completion of his residency in 1943, he entered military service and served at a number of large stateside air bases, both as general duty officer and as chief of obstetrics and gynecology. After thirty-eight months of service, he was discharged with the rank of major in 1946.

Following separation from the Air Forces, Dr. Richards entered private practice in New Haven in October, 1946, and has been a busy practitioner of obstetrics and gynecology in that city ever since. He is on the staffs of both the Grace-New Haven Community Hospital and St. Raphael's Hospital. At the latter hospital he is a senior attending physician in his specialty, as well as being active on various staff committees. He has made several published contributions to the literature of obstetrics and gynecology and is a diplomate of the American Board of Obstetrics and Gynecology.

He is an active member of the New Haven Medical Society as well as the New Haven County Association. He is a member of the Knife and Stork Club, Connecticut Society of American Board Obstetricians and Gynecologists and past president of the New Haven Obstetrical Society.

Dr. Richards and his wife, Friederike, reside in Hamden with their two younger sons. A third son is a sophomore at the University of Connecticut. Mrs. Richards, also a graduate of Cornell University, has been active in the affairs of the Woman's Auxiliary of the New Haven County Medical Association and is president-elect of that organization. In addition to a rather full schedule of running a home for her husband and sons, she is taking graduate work at New Haven State Teachers College and does substitute teaching in the Hamden school system.

William R. Richards, M.D.

In William R. Richards, the State Society has as executive secretary, a sincere, honest and tireless worker whose every effort is bent toward doing a conscientious job for the benefit of every member of the organization. Thrown suddenly into a new and difficult job, he literally rolled up his sleeves and piled right in to achieve such good results as to win admiration from all the men associated with him in tending the affairs of the Connecticut State Medical Society. We are indeed fortunate that trying times have brought forth the right man.

Israel E. Blodinger, M.D.

COUNCIL MEETING

Wednesday, October 29, 1958—4:00 P.M.

A regular monthly meeting of the Council was called to order by the Chairman, Dr. Feeney, at 4:00 P.M. on Wednesday, October 29, 1958. Present in addition to the Chairman were Doctors Russell, Weise, Polito, Richards, Gallivan, Weld, Scully, Davis, Gens, Kennedy, Buckley, Blodinger, Eddy, Seigle, Grendon, Gardner, Rentsch and Gilman. Absent were Doctors Monahan, Carter, Clarke, Archambault, Schiavetti, Ottenheimer, Starr and Hughes.

MEMBER OF MIDDLESEX COUNTY TO COMMITTEE TO STUDY PREPAYMENT PLANS. It was VOTED to appoint Henry Sherwood, Middletown, as representative from Middlesex County to the Committee to Study Prepayment Plans.

REPORT OF SUB-COMMITTEE RE ROSTER. The subcommittee recommended several possible solutions of the problem of publication of the Roster and it was VOTED to accept the following recommendation: "That for reasons of tradition, precedent and the convenience of members and medical organizations throughout the state, we favor publication and distribution of the Roster annually, exactly as it has been in the past." It was further VOTED that publication be resumed in August, 1959.

COMMUNICATION FROM LITCHFIELD COUNTY MEDICAL ASSOCIATION. By vote of the Litchfield County Medical Association, Sydney R. Kennedy, Jr., Councilor, had been requested to present to the Council certain recommendations which were included in his Councilor's report to that Association. His remarks were for information purposes only. He expressed the feeling that in future CMS contracts, provisions should be made to provide the following services—Payment of in-hospital care from the first day; in-hospital coverage of services to both premature and term infants; coverage of procedures not listed as surgical, such as spinal tap, exchange transfusions, etc.; some sort of apportionment of surgical fees to family doctors who may assist in surgical operations; some type of catastrophic insurance such as was proposed under the integrated contract.

RECEPTION OF LOUIS NAHUM, LITERARY EDITOR OF THE JOURNAL. Dr. Nahum had been invited to attend this meeting of the Council by action taken at the meeting of September 18, 1958. He had already submitted his discussion and recommendations in writing and enlarged upon these. It was felt that his recommendations had great merit but that since a number of rather complicated problems were involved, possibly requiring changes in the by-laws in regard to the Journal and its operation, it would be best to refer the entire matter to a committee which will report to the Council at the next meeting. It was VOTED that the Chairman appoint a committee to study the operation and organization of the Journal, including a consideration of Dr. Nahum's recommendations, such committee to include the Managing Editor, the Literary Editor, the Executive Secretary and others. The Chairman appointed the following committee: the Literary Editor of the Journal, Chairman, the Managing Editor of the Journal, the Executive Secretary, and Allan J. Ryan of Meriden. (AMB 10/29/59 "A")

RESIGNATION OF MANAGING EDITOR OF THE JOURNAL. (a) A letter from David T. Monahan, Managing Editor of the Journal and dated October 2, 1958, was read. In this letter Dr. Monahan tendered his resignation as Managing Editor of the Journal to take effect immediately. It was VOTED to accept Dr. Monahan's resignation.

A second letter from Dr. Monahan to the Chairman of the Council, dated October 28, 1958, was read at Dr. Monahan's request. This letter required no action.

(b) The Chairman then announced that nominations were open to appoint a Managing Editor of the Journal to complete the unexpired term of Dr. Monahan, resigned. The name of Denis S. O'Connor, New Haven, was placed in nomination. There were no other nominations and it was VOTED to appoint Dr. O'Connor to this post, such action being subject to approval by the House of Delegates at the December 1958 semi-annual meeting.

ACTION ON RESIGNATION OF MEMBER OF PROGRAM COMMITTEE. (a) Included in the first letter from David T. Monahan which was read under the previous item, was a notification of his resignation as a member of the Program Committee. It was VOTED to accept Dr. Monahan's resignation.

(b) It was VOTED to appoint J. Forbes Rogers, Stamford, to the Program Committee to complete the unexpired term of Dr. Monahan, resigned, for the term 1958-1960, subject to approval of the House of Delegates at the December 1958 semi-annual meeting.

EMPLOYMENT OF A LOBBYIST. Dr. Feeney gave a report on his efforts to obtain a lobbyist who might represent the Connecticut State Medical Society at the 1959 sessions of the General Assembly. His conclusion was that, because of the expense involved and the impression he had gained from various sources that it was preferable to have a physician representing the Society, the employment of a non-medical lobbyist was undesirable. After some discussion it was VOTED that the Chairman of the Council meet with the Committee on State Legislation for the purpose of working out a program of action to provide for representation of the Society at the meetings of the General Assembly in 1959.

REPORT OF BUDGET COMMITTEE. The report of the Budget Committee, with explanatory remarks, was presented by Dr. Polito, Chairman. It was VOTED to accept the recommended budget for submission the House of Delegates at its semi-annual meeting in December. The following specific recommendation to the Council was also accepted that the 1959 salary of the Assistant to the Executive Secretary be made retroactive to August 1, 1958, the official date of assumption of office.

Allied actions regarding the budget were as follows:—(1) It was VOTED that delegates to the AMA and other official Society representatives to AMA meetings be reimbursed, within reason, for expenses incurred above and beyond the budget allotted them. (2) It was VOTED to authorize the AMA delegates to negotiate with other Societies in the Council of the New England State Medical Societies to engage a "New England Room" at AMA meetings in which to conduct discussions etc, and to commit the Society to underwrite its proportion of the cost of same.

RECONSIDERATION OF ALLOTMENT TO COMMITTEE ON PUBLIC HEALTH FOR SUB-COMMITTEE ON SCHOOL HEALTH. It was VOTED to take this matter off the table and after hearing communications from Dr. Wilson, Dr. Hetzel and Dr. Kennedy, it was VOTED to authorize $250 to pay the cost of the publication of the Second School Health Conference minutes as originally requested by the Committee on Public Health.

CONFERENCE ON VETERANS' AND MILITARY DEPENDENTS' MEDICAL CARE. It was VOTED to appoint Harold M. Clarke, New Britain, as the Society's representative to the Conference on Veterans' and Military Dependents' Medical Care to be held in Minneapolis on December 1, 1958 and to authorize the payment of any expense incurred by Dr. Clarke in attending this conference.

REGIONAL CONFERENCE ON HOSPITAL-ACQUIRED STAPHYLOCOCCAL INFECTIONS. A request for three representatives from the Society to attend a Regional Conference on Hospital-Acquired Staphylococcal Infections was read. Upon recommendation of the Chairman of the Committee on Public Health it was VOTED to appoint Clarence W. Harwood, Middletown, from that Committee; On recommendation of Roswell D. Johnson, Chairman of the Committee to Study Perinatal Mortality and Morbidity, it was VOTED to appoint Dr. Andrew F. Turano, Middletown from that Committee; no name had been submitted by the Chairman of the Committee on Hospitals and it was VOTED to request him to name an appointee at the earliest possible moment. Dr. Bernard F. Mann, Jr., New Haven, was later recommended by Dr. George H. Gildersleeve, chairman of the Committee on Hospitals, to attend this meeting.

CONNECTICUT MEDICAL SERVICE. (a) Progress report of Chairman of sub-committee. Dr. Feeney gave a comprehensive report on the two meetings between the liaison committees of CMS and the Society which have been held since resumption of negotiations. He brought the following matters to the attention of the Council:

1. That the atmosphere at these meetings has been one of friendly cooperation and that a solid foundation is being laid for a close and harmonious working relationship between the Society and its sponsored Blue Shield agency, CMS, Inc.

2. That the Society owes a great debt of gratitude to Mr. John Castellucci and his associates from Blue Shield Medical Care Plans for their efforts in helping to bring about a satisfactory settlement of the basic controversy and for the invaluable aid which Mr. Castellucci continues to give the sub-committees in their efforts to establish a sound Blue Shield program for the citizens of Connecticut and their physicians.

3. That consideration is now being given to such matters as proper and effective liaison and the structure and functions of the Professional Policy Committee.

4. That no discussion of new contracts or changes in old contracts has yet occurred but many well be an item of business at an early subsequent meeting.

5. That the text of a resolution passed at the CIO annual convention, 1958 and submitted to the CMS Board of Directors had been discussed at the liaison meeting of October 24, 1958. The complete text of this CIO resolution is as follows:

"This Convention goes on record as requesting that CMS voluntarily change its by-laws to provide a new set-up in its Board of Directors, so that 50 per cent of its membership shall be from those community interests which are essentially the consumers of the services offered by the CMS: and to provide further recognized spokesmen for organized labor.

"If no action has been taken by the Connecticut Medical Service Board of Directors to grant this request by January 1, 1959, legislation be sought in the next session of the General Assembly to require that any organization operating in the State of Connecticut which offers insurance against hospital care or medical expenses on a so-called nonprofit basis shall be required so to constitute its Board of Directors that at least one-half its members represent consumers of the services which are offered; and further provided that, of the consumer representatives, at least one-half shall be recognized spokesmen for organized labor in Connecticut."

6. That the representatives of the Society had been informed of the terms of a new plan of the Michigan Medical Service (called M-75) which is most radical in nature, providing service benefits for practically everyone except those in the very highest income brackets and with the benefit level based on hourly pay, a 40 hour week, and on the subscriber's income only. Different contracts are offered at different income levels, ranging from the lowest of $2,500 per year to the highest of $7,500 per year and with professional payments being established as 100% at the $7,500 year level and down-graded on a percentage basis to the $2,500 year level.

The Board of CMS expressed concern as to the effect such a plan might have in other states if the physicians of Michigan accepted it and found it satisfactory in operation over the next two or three years.

7. That the complete details of the present negotiations, while in no sense secret, are such that it is believed undesirable to make public the proceedings until final decisions have been made and officially accepted by both parent organizations. Meanwhile, since it was the intent of the Council to keep members of the Society fully informed in these matters, it was agreed that a condensed but reasonably detailed account of the joint meetings be sent to Councilors and Alternate Councilors who could then inform the governing bodies of their respective county associations of the progress being made in the Society's negotiations with CMS.

(b) Letter from Blue Shield Medical Care Plans. A letter from Mr. John Castellucci, Executive Vice-President of Blue Shield Medical Care Plans to the

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Chairman of the Council was presented for information. The essence of Mr. Castellucci's letter was an expression of thanks for the cooperation and helpful attitude of the Chairman and all members of the Council in furthering the efforts of his committee to resolve the controversy with CMS.

(c) Appropriation to cover cost of legal counsel during CMS controversy. A Statement for legal services rendered the Council during the period May 25, 1958 to August 24, 1958 had been received from Fischer and Fischer, Attorneys, and was presented to the Council for consideration. It was VOTED to approve payment of this bill as rendered.

(d) Professional Policy Committee. Since the Council had taken no action on the letters of resignation of three members of the CMS Professional Policy Committee, i.e., Roswell D. Johnson, Allan J. Ryan and John D. Booth, and since the proper relationship of the Society with CMS had been restored, it was VOTED to authorize and request Drs. Johnson, Ryan and Booth to resume their membership on the Professional Policy Committee, effective immediately.

ELECTION OF STUDENT MEMBERS. Twenty-four student members were elected and a list follows these minutes.

COMMUNICATION FROM NAUGATUCK VALLEY MEDICAL SOCIETY. After consideration of the question of ethics involved in the listing of telephone numbers in local directories by physicians living and having offices outside a community, it was decided that the question was not within the province of the Council and it was VOTED to recommend to the Naugatuck Valley Medical Society that this matter be referred to the several county medical associations concerned.

RECOMMENDATION OF JOINT MEETING OF COMMITTEE ON HOSPITALS AND CONNECTICUT HOSPITAL ASSOCIATION. The Council had been asked to consider a recommendation of the Joint Committee of the Committee on Hospitals of the Society and the Committee on Professional Practices of the Connecticut Hospital Association relative to the effective date of the ruling of the Medical Examining Board on the matter of issuance of required educational permits to graduates of unapproved foreign medical schools to serve as interns or residents in Connecticut hospitals. The effective date as determined by the Medical Examining Board is July 1, 1959 and the recommendation of the Joint Committee was that the Council petition the Connecticut Medical Examining Board to change this date to July 1, 1960. A letter from Louis P. Hastings, Acting Secretary of the Board, was read and after

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considering all aspects, it was VOTED that the Council *not* petition the Connecticut Medical Examining Board to make such change.

COMMUNICATION FROM COMMITTEE ON ACCIDENT PREVENTION. A letter from Louis Spekter, Chairman of the Committee on Accident Prevention was read requesting information and guidance from the Council as to what activities this Committee should pursue. A memorandum making useful suggestions to the Committee had been prepared by the Public Relations officer and it was VOTED to forward these recommendations to the Committee on Accident Prevention.

CHANGE OF NAME FOR COMMITTEE ON INSURANCE. It was VOTED to approve a change in the name of the Committee on Insurance to the Committee on Medical Economics and Insurance as requested by M. David Deren, Chairman.

JOURNAL RECONSIDERATION. After reconsideration of the September 18, 1958 action of the Council instructing the Managing Editor and Editorial Board of the Journal to restore the name "Connecticut State Medical Journal" unless and until the by-laws are changed to authorize and provide a new name for the Journal, it was decided that such restoration, if made immediately, would result in great confusion and major difficulties in Journal business operations and it was VOTED that the addition of the words "Connecticut State Medical Journal" under the title "Connecticut Medicine" as it appears on the cover of the October issue shall be considered to conform with the intent of the Council's action of September 18, 1958 and shall be permitted to continue until such time as the by-laws are changed or other official decision as to the name of the Journal is made.

It was VOTED that the Society's Auditors be asked to make a detailed audit of the Journal operations during the six-month period May 1, 1958 to October 31, 1958 and to submit a report of this audit to the Council.

EMPLOYMENT OF FULL TIME EXECUTIVE SECRETARY. The desirability of the employment of a full-time Executive Secretary was briefly considered and it was VOTED that the Chairman appoint a committee of four members of the Council to include the Chairman, the Executive Secretary and two others to study this question and to make recommendations to the Council concerning the desirability and manner of employment of a fulltime Executive Secretary. The Chairman appointed John Gallivan, Hartford and Israel E. Blodinger, New Haven, to complete the committee.

ANNUAL MEETING. The Secretary reported that the dates of the 1959 Annual Meeting are April 28, 29, 30, 1959, that the meeting will be at Hamden High School, Hamden, Connecticut and that the Annual House of Delegates Meeting will be held on April 28, 1959.

NEXT MEETING OF COUNCIL. It was VOTED that the next meeting of the Council will be held on Thursday, November 20, 1958.

WILLIAM R. RICHARDS, M.D.
Executive Secretary
THOMAS M. FEENEY, M.D.
Chairman of the Council

In Memoriam

DEVITT, ELLIS K.—Old Lyme; Maryland Medical College, 1907; started practice in Old Lyme in 1908 and was honored by residents last June for 50 years of service to that community as a family physician; died suddenly November 4, aged 78.

LOCKWOOD, HOWARD D.—Meriden; Yale University School of Medicine, 1901; retired last March as medical examiner for Meriden after serving 30 years; a specialist in orthopedics, he was president of the Medical Board at Meriden Hospital for 20 years; served as a Major in the Medical Corps during the Mexican Border Campaign, 1916, and organized the Meriden Ambulance Corps for service in World War II; as city health director, he introduced first steps for pasteurization of milk in the area in 1930; successful educational programs to encourage immunization against diphtheria and smallpox also were among his accomplishments; he served as president and secretary of the Meriden Medical Society and as president of the Meriden Rotary Club; died September 25 at his home, aged 81, following a brief illness.

STRICKLAND, HAROLD—Meriden; McGill University School of Medicine, 1930; started practice in Meriden in 1931 following internship at the Meriden Hospital; served as chairman of the Board of Health and as vice-president of the Meriden Medical Society and a member of the Medical Board at Meriden Hospital; he was a veteran of World War II; died suddenly October 6 of a heart attack at his home, aged 60.

OBITUARY

Arthur J. Sekerak, M.D.
1898 - 1958

Dr. Arthur J. Sekerak, a senior member of St. Vincent's Hospital Medical Staff, Bridgeport, Connecticut, for the past thirty-five years, died there on February 19, 1958 of an acute coronary thrombosis.

Born in Bridgeport, Connecticut, on May 9, 1898, he attended St. Charles School and Bridgeport High School before entering the Mount Vernon Collegiate Institute in Baltimore, Maryland, to begin pre-medical studies. He received his M.D. from the University of Maryland in 1922 and returned to Bridgeport to serve his internship at St. Vincent's Hospital, and from 1923-24 served as a resident there. From 1924-25 he served as ambulance surgeon for the City of Bridgeport. He began private practice in 1925 and was immediately appointed as an assistant on the medical staff of St. Vincent's. Promotions came rapidly and he was made an associate in the medical division from 1935-42. In the latter year he became chief of the division, retaining the post until the time of his death. For many years he was an instructor in medicine in the School of Nursing.

The esteem in which Arthur was held by his colleagues is evidenced by the numerous offices which he held at St. Vincent's Hospital. He was secretary-treasurer of the staff, vice president and president successively between 1944-47. He was also a member of the executive board at various times. In 1948 he was made associate medical director. On January 28, 1958 he was awarded a plaque for thirty-five years of meritorious services. In spite of his very busy and active private practice he was never too tired or too busy to advise, help and train the younger members of the medical and nursing profession. He served in all of these appointments with devotion and distinction. Early in his career he became interested in cardiology and his post graduate work was completed at the Mantifiore Hospital, New York City. He developed quite a reputation as a clinician. He was almost uncanny in the manner in which he could make a diagnosis especially in rare and difficult cases.

Arthur came from a family of physicians. He was the eldest of three brothers who received their M.D. from the University of Maryland. In 1932 he married Pauline Dorothy Hruby, R.N. who survives him. Their son Arthur, Jr. is a graduate of Phillips Exeter Academy, Yale University and New York University Law School in 1958.

He held membership in the following medical societies; American Medical Association, Fairfield County Medical Association, American Heart Association, Conn. State Med. Society, and Bridgeport Medical Society of which he was president in 1951.

Arthur was a former trustee of St. John Nepomucene Church and a past member of the board and founder of the boy scouts of that parish. He was active in civilian defense work at St. Vincent's Hospital between 1942-45, and completed ROTC training in 1918. For many years he was associated with the late Monsignor Murphy in the Catholic Charity Bureau.

Dr. Sekerak was a charter member of the Mill River Country Club. Golf was his favorite hobby.

Arthur had a most charming and warm personality. He was a beloved, colorful figure, a devoted family man. His character and career were definite inspirations to his son and brothers. No one who met him, heard him speak or once came within range of his warm and vigorous personality, failed to feel his magnetism. Whether he was at home or at the office, at a party or scientific meeting or telling a story, his enthusiasm and gaiety, his energetic voice and characteristic gestures, his vigor of mind and body always made him appear more alive than most people in the gathering. When death cuts off untimely a man as vivid as this, a man who had so much to get from life and so much to give to life, it comes greater than usual shock to those who knew the man and loved him.

Albert Levenson, M.D.

Connecticut State Medical Society Officers and Committees, 1958-59

President:
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Members of The Connecticut State Medical Society reading papers before other organizations are requested to submit their papers to the Journal for consideration by the Board of Editors for publication. Please send them to:

CONNECTICUT MEDICINE
160 St. Ronan Street
New Haven 11, Connecticut

CORRESPONDENCE

Yale University School of Medicine
Department of Interal Medicine New Haven 11, Connecticut

October 8, 1958

Editor, Connecticut Medicine
160 St. Ronan Street
New Haven, Connecticut

Dear Sir:

The old Chinese proverb, "One picture is worth a thousand words" has been proved quite true by the Q.T. Club of New Haven; the club consisting of men and women who have all undergone the operation known as an ileostomy.

Since its formation in November 1956, the members of the club have visited patients in the hospital before and after surgery, with the doctors' consent, to help them aljust to the necessity of wearing an appliance, etc. When the patient sees someone who has an ileostomy and is working or keeping house everyday, who may swim, bowl, dance, travel, raise a family, etc., he realizes that he too can continue to lead a normal life.

Although the members give the patients a helping hand, they explain that the doctor is the patient's best friend and urge them to take their problems to their doctors. The club has no intention of working contrary to the desires of the doctor in their relation with their patients, and while the Q.T. Club may help its members, it is clearly understood that it is merely an instrument of aid to the doctors. One of the main reasons the club was formed is the doctors and nurses don't seem to know enough about ileostomies. We have on hand a sample kit with samples of the different appliances and products that are on the market, we also have literature on some that we don't have samples of.

Among their other activities, the Q.T. Club of New Haven also holds lectures for groups of doctors and nurses to help them better understand the care and problems of ileostomy patients while they are in the hospital.

New Haven is not the only place where a Q.T. Club may be found. There is a newly formed club in Hartford, 14 others in the United States, with the largest club in Boston, Massachusetts consisting of 500 members, three clubs in Great Britain and one in South Africa. The original club was started in a New York Hospital. There were quite a few ileostomies performed on Ward Q and Ward T. The patients got together and decided to form a club to help one another and that is how the club got its name.

The New Haven club meets every third Wednesday of the month at 8:00 p.m., except during July and August, to hear lectures by doctors and manufacturers of appliances, to discuss problems and give one another helpful hints. The only requirement for membership is an ileostomy. We chose New Haven Hospital as a place to meet because of convenience. The club is not limited to just this one hospital. If more information is desired or you know of anyone who might be interested in becoming a member, please call Mrs. Agnes Garvey, WEst 3-8988 or Mr. William Bonoff, SPruce 6-9326.

Sincerely yours,

RUTH V. TRUHART

You can refer your patients, with confidence, to members of

THE CONNECTICUT HEARING AID SOCIETY

This Society was established to promote and maintain a professional level of conduct, and to encourage cooperation between hearing aid consultants and members of the Medical professions.

Society members agree to use audiometric test equipment to plot hearing loss before recommending use of hearing aids; teach the proper use of hearing aids; be honest in all advertising; and refer individuals needing medical attention to the Medical professions.

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NEW MEDICARE INFORMATION

POLICY WITH REFERENCE TO MEDICARE PERMITS

1. Inquiries have been received as to whether an eligible dependent who commences receiving authorized care from a civilian source participating in the Program, who is *residing apart from the sponsor* at the time the care commences, and who *takes up residence with the sponsor* before completion of that care, may continue that care from that source without obtaining a MEDICARE PERMIT. As a general rule, such care may be continued without a MEDICARE PERMIT. Guidance for administration of the rule in certain specific instances is set forth below:

a. An eligible dependent spouse or child who is *hospitalized* for care authorized under the Program, who is "Residing Apart from Sponsor" at the time of admission, and who acquires the status of "Residing with Sponsor" during hospitalization, may complete authorized hospital care for that admission and for readmissions indicated under Section 5-506g of the Joint Directive without a MEDICARE PERMIT. That Section covers readmissions within 14 days following discharge from the previous admission, for authorized treatment of the original condition for which initially hospitalized or direct complications thereof.

b. An eligible dependent who is "Residing Apart from Sponsor" at the time *maternity care* is commenced, and who takes up residency with her sponsor during the period of the care and prior to hospitalization for delivery or for complications of pregnancy, would not be in a position to certify on the hospital claim form "Residing Apart from Sponsor—Yes." Also, she would not be in a position to make such a certification on claim forms of other approved sources of care. However, if she does not change her attending physician, she may obtain required hospitalization and other required care from approved sources without a MEDICARE PERMIT, provided the person signing Item 14 on the DA Form 1863 furnishes the hospital a written statement, on the claim form or attachment thereto, that maternity care for the pregnancy or complications thereof for which hospitalized was commenced on a date when she was residing apart from the sponsor. If such an eligible dependent changes her attending physician for any reason (other than death or illness of her attending physician), she must secure a MEDICARE PERMIT in order to obtain authorized care from civilian sources at Government expense. In those instances where a change of attending physician has occurred due to the death or illness of the attending physician, that fact should be stated on the claim form or attachment thereto by the person signing Item 14 on the DA Form 1863. Of course, any eligible dependent may obtain required care from a uniformed services medical facility, if available.

2. With the exception of the above elaboration of policy as to persons who may receive authorized medical care under the Program without the requirement for a MEDICARE PERMIT, the provisions of ODMC Letter No. 16-58 apply.

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Announcements

Fred M. Haddad, M.D., announces the reopening of his office for the general practice of medicine at 156 Main Street, Ansonia.

Philip A. Marinoff, M.D., is reopening his offices at 7 Lafayette Street, Milford, for the practice of diseases of the ear, nose and throat.

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BOOK REVIEWS

MEMOIRS OF A G.P. by Otis Marshall, M.D. New York, Vantage Press, Inc. 155 pp. $3.50.

Reviewed by Robert A. Weston, Jr.

In the brief but action packed account of his life, Dr. Marshall carries us through fifty years of medical practice. His twenty years as a "horse and buggy" G.P. form the most interesting part of the book. As the author recollects cases and incidents, some amusing, some quietly heroic, but all calling for an ingenuity that amazes the modern physician the reader becomes aware of a warm, kindly personality whose prime motivation is his devotion to and love for his work. More details of the problems encountered in particular cases would have been of great interest.

After his retirement from general practice, Dr. Marshall spent twelve years traveling across the country teaching instructor classes in first aid for the American Red Cross. His accounts of his travels might well have been omitted. This was followed by a short spell in industrial medicine, a term as medical director of a mental hospital, and finally three years as medical director of Penny Farms, Florida, one of the first research centers of geriatrics.

The final chapters might be rather depressing (in their realistic portrayal of a man's declining years) but for the courageous acceptance of life that illumines them. Although Dr. Marshall's literary style is in general so matter of fact that it becomes tedious, his enthusiasm for his profession and his love of life in all its aspects make this book a pleasant evening's reading. Recently Dr. Marshall has been honored by his University of Virginia Medical School as a "patriarch" for his fifty years of service to medicine.

TOXEMIAS OF PREGNANCY: L. H. Hellman, M.D., Ed.; FIBROMYOMAS OF THE UTERUS: R. A. Kimbrough, M.D., Ed., Clinical Obstetrics and Gynecology, *1: 295-544, June, 1958, New York, Paul B. Hoeber, Inc.*

Reviewed by C. D. Davis

TOXEMIAS OF PREGNANCY

The editor of this symposium has succeeded in presenting in twelve relatively short chapters by different authors, a very concise picture of what is known today about toxemia of pregnancy. The theoretical aspects of fluid metabolism is discussed in the first three chapters. Circulation as it is altered in toxemia, is taken up in the next three articles. Pathology of the placenta and the endocrine aspects of toxemia are very adequately discussed. The last four chapters deal with the prophylaxis and treatment of toxemia.

This reviewer finds this symposium to be very interesting and instructive and doubts seriously whether very many obstetricians would not profit considerably by reading it.

FIBROMYOMAS OF THE UTERUS

The first four topics discussed in this symposium include the signs and symptoms of fibromyomas, uterine adenomyosis and adenomyoma, benign and malignant changes and the effects of uterine myomas on the urinary tract. The subsequent eight chapters deal with treatment. Every aspect of treatment is very adequately covered.

The reviewer is a little surprised to see so much emphasis placed on radiation therapy as it is the reviewer's personal opinion that this type of treatment should be reserved for the occasional very poor-risk patient.

Techniques of myomectomy vaginal hysterectomy and abdominal hysterectomy are very nicely covered. The relationship between infertility and fibromyomas is discussed, as well as the complications that myomas present in pregnancy.

There is very little that is new in this symposium, but it does present a well rounded review and is recommended as such.

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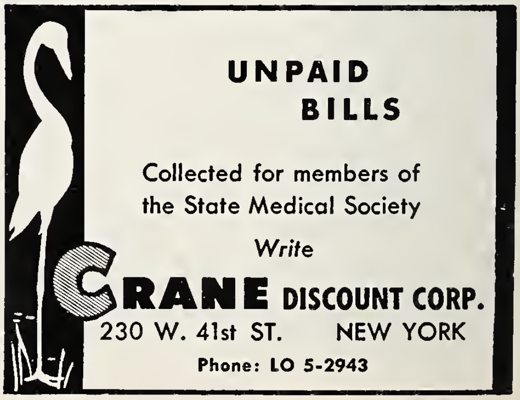
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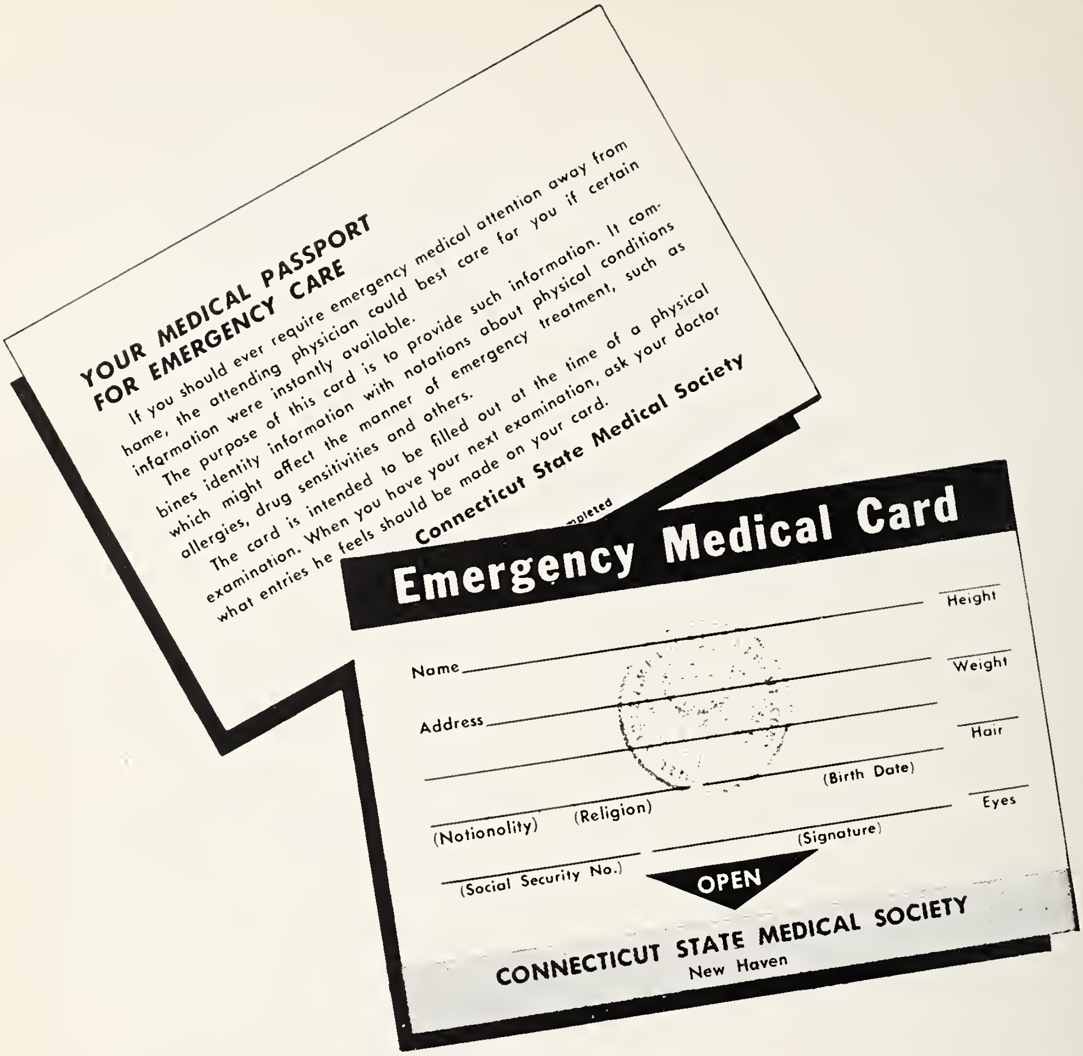

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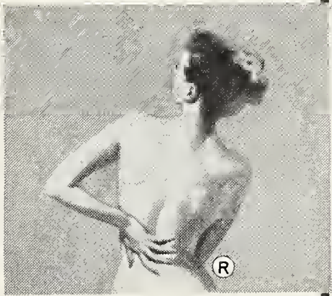

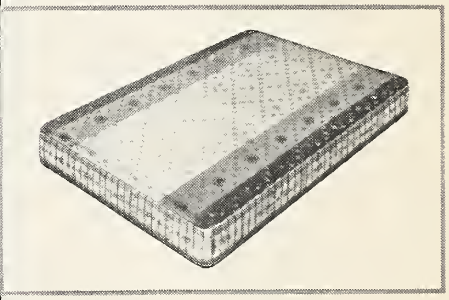

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which patients with noncalculous gallbladder disease should undergo surgery?

Essentially those who are not relieved by a prolonged trial period of medical management.
Source—Lichtenstein, M. E.: GP *16*:114 (Oct.) 1957.

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